

MATHS

BOOKS - MOTHERS

NUMBER SYSTEM

0

- 1. Find out the unit digit in the following expression ?
 - $31\times37\times36\times46\times89$
 - A. 2
 - B. 8
 - C. 6
 - D. 1

- **2.** Find out the unit digit in the following expression ?
- $91 \times 93 \times 95 \times 97 \times 98$
 - A. 2
 - B. 3
 - C. 0
 - D. 4

Answer: c



- 3. Find the unit digit of the product of all the odd prime numbers.
 - A. 5
 - B. 2

(С.	9
(С.	9

D. 4

Answer: a



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4. Find out the unit digit in the following expression.

 $584 \times 328 \times 547 \times 613$

A. a) 4

B.b)8

C. c) 2

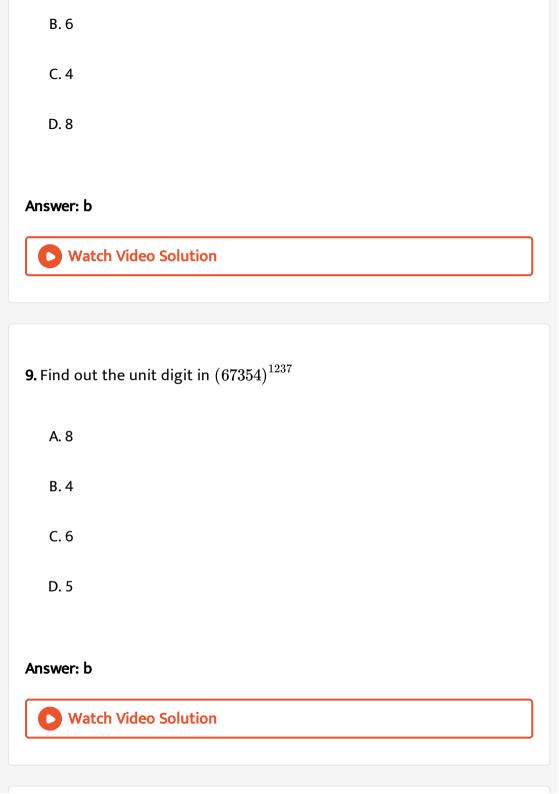
D. d) 5

Answer: c



5. Find out the unit digit in the product of all the even numbers.
A. a) 5
B. b) 2
C. c) 0
D. d) 4
Answer: c
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6. Find out the unit digit in 4!
6. Find out the unit digit in 4! A. a) 8
A. a) 8
A. a) 8 B. b) 5

Answer: d Watch Video Solution 7. Find out the unit digit in 5! A. 0 B. 5 C. 2 D. 4 Answer: a Watch Video Solution **8.** Find out the unit digit in $\left(6736\right)^{32567}$ A. 2



10. Find out the unit digit in $\left(3259\right)^{1214}$
A. 9
B. 3
C. 7
D. 1
Answer: d
Watch Video Solution
11. Find out the unit digit in the following expression $\left(2137\right)^{753}$
11. Find out the unit digit in the following expression $\left(2137\right)^{753}$ A. 9
A. 9
A. 9 B. 7

Answer: b



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- **12.** Find out the unit digit in $\left(13\right)^{2003}$
 - A. A. 3
 - B. B. 9
 - C. C. 1
 - D. D. 7

Answer: d



- **13.** Find out the unit digit in $\left(22\right)^{23}$
 - A. 8

- B. 2
 - C. 6
 - D. 4

Answer: a



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14. Find out the unit digit in -

- $(23)^{21} imes (24)^{22} imes (26)^{23} imes (27)^{24} imes (25)^{25}$
 - A. 2
 - B. 4
 - C. 0

D. 5

Answer: c



15. Find out the unit digit in -

$$\left(235
ight)^{215}+\left(314
ight)^{326}+\left(6736
ight)^{213}+\left(3167
ight)^{112}$$

A. 2

B. 0

C. 8

D. 5

Answer: c



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16. Find out the unit digit in $\dfrac{12^{55}}{3^{11}}+\dfrac{8^{48}}{16^{18}}$

A. 2

B. 4

C. 0

Answer: c



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17. Find out the unit digit in the following expression -

$$\left(3694\right)^{1793} imes \left(615\right)^{317} imes \left(841\right)^{941}$$

A. 5

B. 3

C. 0

D. 4

Answer: d



18. Find out the unit digit in the $\left(7^{95}-3^{58}
ight)$

A. A. 7

B. B. 3

C. C. 4

D. D. 0

Answer: c



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19. Find out the unit digit in the -

 $(17)^{1999} + (11)^{1999} - (7)^{1999}$

A. 0

B. 1

C. 2

D. 7

Answer: b



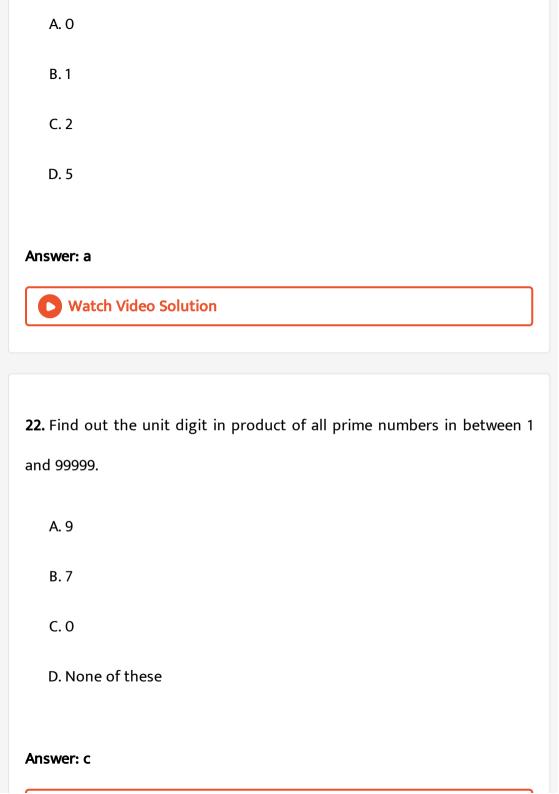
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- 20. Find out the unit digit in the 111!
 - A. 0
 - B. 1
 - C. 5
 - D. 3

Answer: a



- 21. Find out the unit digit in the following expression -
- $1^3 + 2^3 + 3^3 + 4^3 \dots + 99^3$



23. The set of all the prime num hers which are greater then 2 but less than 222, Find the unit digit in the product of the set ?

- A. 4
- B. 5
- C. 0
- D. None of these

Answer: b



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24. Find out the unit digit in the -

$$1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9 \times 10$$

A. 7

B. 9

C. 8

D. None of these

Answer: c



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25. Find out the unit digit in the -

 $888^{92335!} + 222^{9235!} + 666^{2359!} + 9999^{9999!}$

A. 5

B. 9

C. 3

D. None of these

Answer: b



26. The last digit of the following expression is :

$$(1!)^1 + (2!)^2 + (3!)^3 + (4!)^4 + \dots (10!)^{10}$$

- A. 4
- B. 5
- C. 6
- D. 7

Answer: d



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27. If the unit digit in $\left(12345k\right)^{72}$ is 6.Then find the value of K.

- $(12345K)^{72}$
 - A. 8
 - B. 6

C. 2

D. All of these

Answer: d



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28. The last number in the expression

$$4+9^2+4^3+9^4+4^5+9^6+\ldots\ldots+4^{99}+9^{100}$$

A. 0

B. 3

C. 5

D. None of these

Answer: a



29. Find out the unit digit in the simplified form of $[(251)^99 + (21)^39 - (106)^100 + (705)^35 - 16^4 + 259]$ A. 1 B. 6 C. 4 D. 5 Answer: c Watch Video Solution **30.** The unit digit of $71 \times 72 \times \ldots \times 79$ is A. a)0 B. b)4 C. c)6 D. d)7

Answer: a



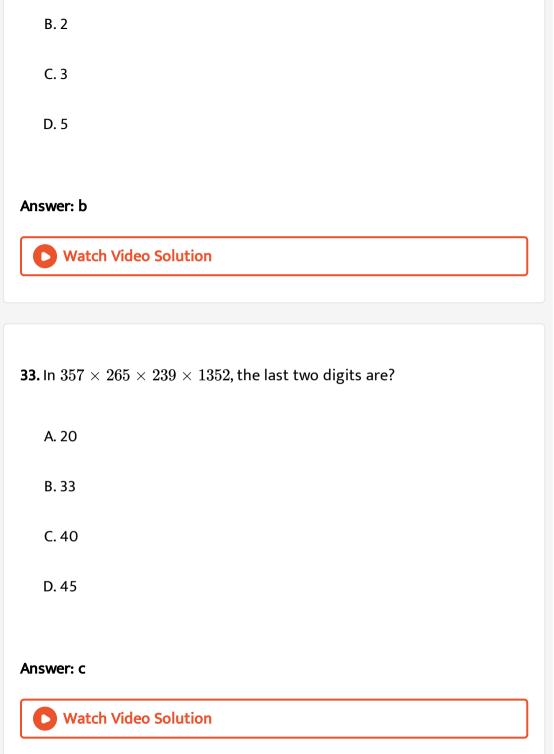
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- **31.** In $13799 \times 96 \times 996$, the tenth place digit is?
 - A. 3
 - B. 4
 - C. 5
 - D. 8

Answer: d



- **32.** In $596 \times 17394 \times 15353 \times 296 \times 427$, the tenth place digit is?
 - A. 1



34. Find unit digit in $(11)^1$. $(12)^2$. $(13)^3$. $(14)^4$. $(15)^5$. $(16)^6$.

A. 3

B. 0

C. 2

D. 5

Answer: b



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 $12 \times 27 \times 63 \times 113 \times 1250 \times 24 \times 650$

35. Find the number of Zeros at the end of the product -

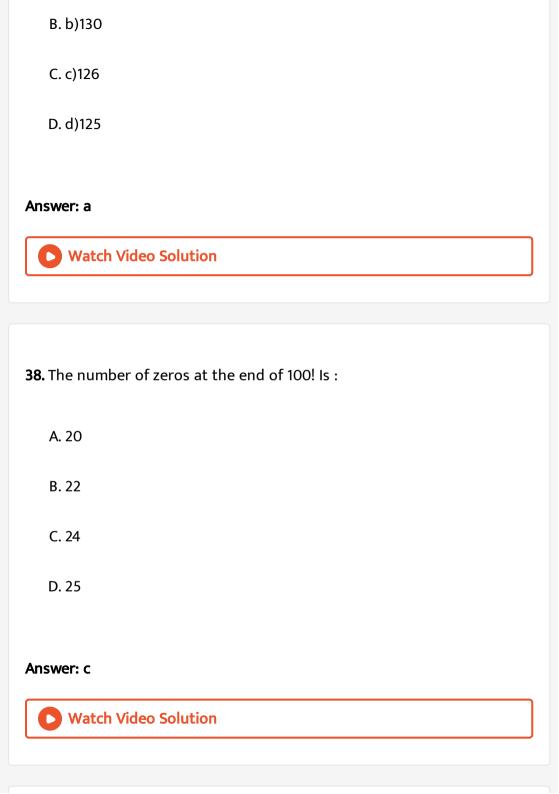
A. 2

B. 6

C. 4

D. 8

Answer: b Watch Video Solution **36.** Find the number of highest power of 3 in 270! A. 134 B. 130 C. 140 D. 135 Answer: a Watch Video Solution 37. Find the number of highest power of 7 in 777! A. a)128



 $1^5 imes 2^5 imes 3^5.....32^5$

A. a) 35

B.b) 40

C. c) 36

D. d) 32

Answer: a



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40. Find the number of Zeros at the end of the given expression?

$$a=1^3, b=2^4, c=3^5,....., z=26^{28}, a imes b imes c imes d..... imes z$$

A. 112

B. 110

C. 118

D. 115
Answer: a
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1. Find the number of Zeros at the end of 378!
A. 93
B. 90
C. 75
D. 81
Answer: a
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42. Find the number of zeros at the end of 1000!.

A. 200 B. 249 C. 248 D. 250 Answer: b Watch Video Solution 43. Find the number of Zeros at the end of the product - $12 \times 5 \times 15 \times 24 \times 13 \times 30 \times 75$ A. 4 B. 5 C. 2 D. 3 Answer: b

$$1\times3\times5\times7\times9\times11......99\times101$$

- A. 24
- B. 5
- C. 2
- D. 0

Answer: d

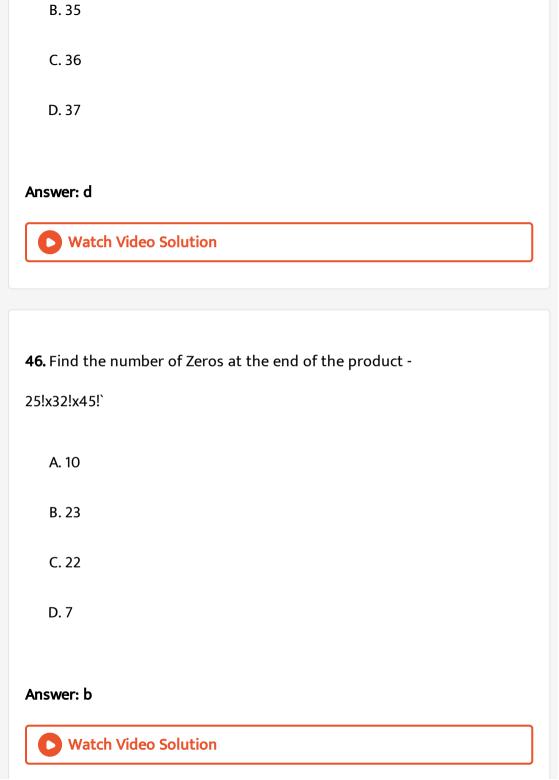


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45. Find the number of Zeros at the end of the product -

 $140! \times 5 \times 15 \times 22 \times 11 \times 44 \times 135$

A. 34



 $3^3 imes 4^4 imes 5^5 49^{49}$

A. 225

B. 250

C. 240

D. 245

Answer: b



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48. Find the total numbers from 100 to 200, which are neither divisible by

3 nor by 5.



$$1^{11} \times 2^{21} \times 3^{31} \times 4^{41} \dots 10^{101}$$

- A. a)51
- B. b)10
- C. c)5! + 10!
- D. d) None of these

Answer: c



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50. Find the number of Zeros at the end of the product -

$$2^3 imes 5^4 imes 4^2 imes 10^8 imes 6^{10} imes 15^{12} imes 8^{14} X 20^{16} imes 10^{18} imes 25^{20}$$

- A. 80
- B. 98
- C. 94

\Box	$1 \cap \cap$
υ.	100

Answer: a



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51. Find the number of Zeros at the end of the product -

A. 15

B. 13

C. 2

D. 3

Answer: c



 $20\times40\times7600\times600\times300\times1000$

A. 11

B. 10

C. 2

D. 3

Answer: a



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53. Find the number of Zeros -

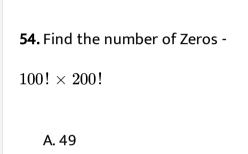
100! +200!

A. 24

B. 25

C. 49

D. None of these	
Answer: a	
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- B. 24
- C. 73
- D. None of these

Answer: c



55. Find the number of Zeros -

 $2^{222} imes 5^{555}$

A. 222

B. 555

C. 777

D. 333

Answer: a



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56. Find the number of Zeros at the end of the expression -

10 + 100 + 1000 + + 100000000

A. 8

B. 28

C. 0

Answer: d



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57. Find the number of Zeros at the end of the product -

$$2^{1} \times 5^{2} \times 2^{3} \times 5^{4} \times 2^{5} \times 5^{6} \times 2^{7} \times 5^{8} \times 2^{9} \times 5^{10}$$

A. 30

B. 25

C. 55

D. 50

Answer: b



58. Find the number of Zeros at the end of the expression -

$$\big(3^{123} - 3^{122} - 3^{121}\big)\big(2^{121} - 2^{120} - 2^{119}\big)$$

- A. a) 1
- B. b) 0
- C. c) 119
- D. d) 120

Answer: a



- 59. Find the number of Zeros at the end of the given expression - $\big(8^{123} - 8^{122} - 8^{121}\big)\big(3^{223} - 3^{222} - 3^{221}\big)$
 - A. a) 1

 - B. b) 2
 - C. c) 0

D. d) 3

Answer: b



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- **60.** Find number of zeros in the end of $1^{20} imes 2^{20} imes 3^{20} imes 4^{20}...... Xx38^{20}.$
 - A. 160
 - B. 180
 - C. 150
 - D. 120

Answer: a



61. Find number of zeros in the end of

 $1^3 imes 2^4 imes 3^5 imes imes 26^{28}$

A. 100

B. 112

C. 125

D. 128

Answer: b



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62. The numbers 2, 4, 6, 8, 98. 100 are multiplied together. The number of zeros at the end of the product must be:

A. 13

B. 12

C. 11

Answer: b

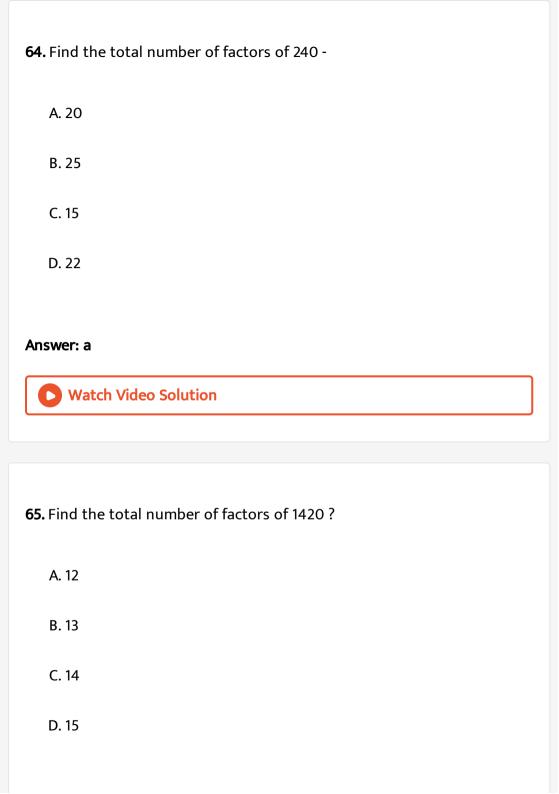


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- **63.** Number of zeros in the end of $\left(1^1 imes 2^2 imes 3^3 imes 4^4 imes imes 98^{98} imes 99^{99} imes 100^{100}
 ight)$?
 - A. 1200
 - B. 1300
 - C. 1500
 - D. 1600

Answer: b





Answer: a



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66. Find the total number of Prime factors in the given expression?

$$(30)^{25} imes (25)^{51} imes (12)^{23}$$

- A. 249
- B. 250
- C. 255
- D. 260

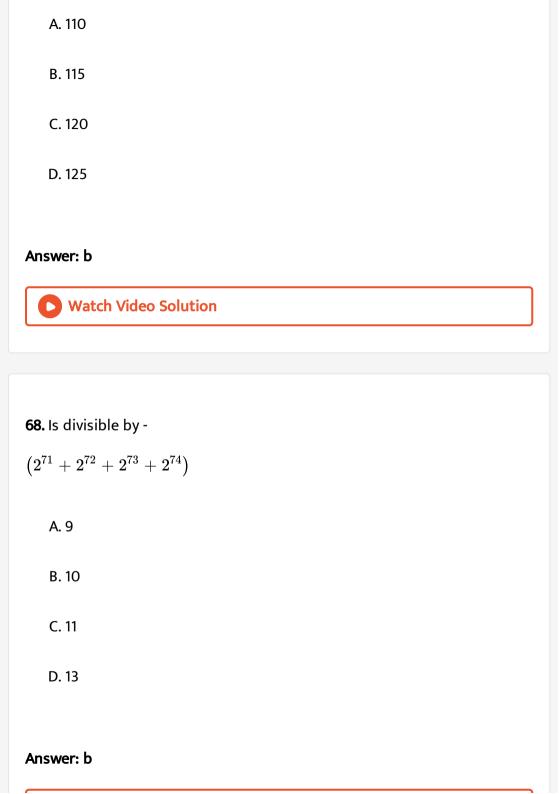
Answer: a



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67. Find the total number of Prime factors in the given expression?

$$(30)^{15} imes (22)^{11} imes (15)^{24}$$



69. A four digit number is formed repeating two digits two times. Like 2525, 3232 etc. such type of number always divisible by?

A. 7

B. 101

C. 12

D. 3

Answer: d



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70. Which of the following number will also divide a 6 digit number which is in the sequence of xyxyxy. (Where $1 \le x \le 9, 1 \le y \le 9$).

A. 1010

71. If a number n is whole number, which is greater than 1. then $n^2ig(n^2-1ig)$ is always divisible by ? A. 16 B. 12 C. 10 D. 8 Answer: b **Watch Video Solution**

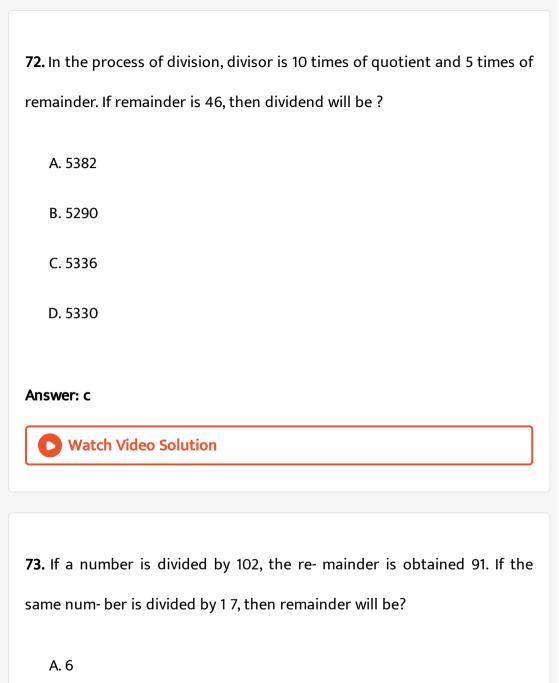
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B. 10101

C. 11011

D. 11010

Answer: b



B. 11

C. 0
D. 2
Answer: a
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74. When a number is divided by 899, re- mainder is obtained 63. If same
number is divided by 29. then remainder will be ?
A. 10
B. 5
C. 4
D. 2
Answer: b
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75. When a number is divided by 52, remainder is obtained 45. If the same number is divided by 13, the remainder ?

A. 5

B. 6

C. 12

D. 7

Answer: b



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76. When a number is successively divided by 4 and 5. The remainder obtained are 1 and 4 respectively. when the same number is successively divided by 5 and 4, the remainder obtained are -?

A.2,3

B. 3, 4

C. 2, 1

D. 3, 2

Answer: a



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77. A least number which when divide by 2, 3 and 5 successively, the remainder ob- tained are 1, 2 and 3 respectively. If the same number is divided by 7, the re-mainder obtained is -

A. 2

B. 3

C. 4

D. 5

Answer: c



78. Find the least number which when di- vided by 4, 5 and 6 successively, the re- mainder obtained are 2, 1 and 1 respec- tively. If the sequence of successive di- visors is reversed, the remeinder obtained are ?

- A. 2, 4 and 0
- B. 1, 2 and 0
- C. 1,1 and 2
- D. 2, 1 and 4

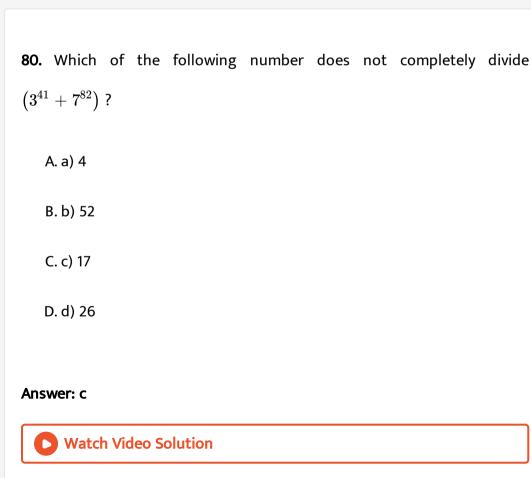
Answer: a



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79. Which of the following number does not completely divide $(29)^{37}+(17)^{37}$?

A. 2



B. 11

C. 23

D. 46

Answer: b

81. $\left(\left(49\right)^{15}-1\right)$ is completely divisible by ?

A. 50

B. 51

C. 29

D. 8

Answer: d



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82. Which of the following number does not completely divide $23^{10} - 1024$?

A. 3

B. 5

C. 7

Answer: d

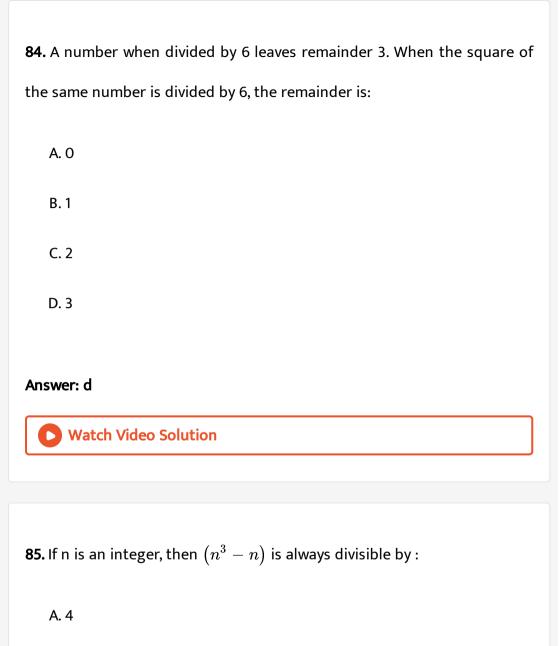


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- **83.** $3^{41} + 7^{82}$ will be divisible by ? 10 ,26, 51, 7.
 - A. 11
 - B. 16
 - C. 25
 - D. 30

Answer: d





B. 5

C. 6

D. 7

Answer: c



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86. (10^n-1) is always divisible by 11, if

A. n is any number

B. n is an odd number.

C. n is an even no.

D. n is a multiple of 11

Answer: c



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87. $(49)^{15} - 1$ is exactly divisible by:

A. 50

- B. 51
- C. 29 D. 8

Answer: d

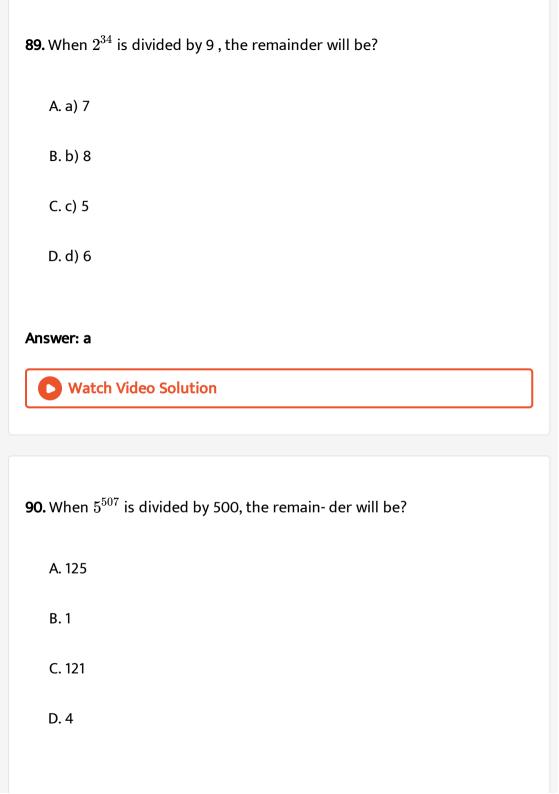


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- **88.** If 9^6-11 is divided by 8, the remainder is
 - A. a) 0
 - B. b) 1
 - C. c) 6
 - D. d) 3

Answer: c





Answer: a



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91. When number 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 is divided by 16, the remainder will be?

- A. 6
- B. 5
- C. 7
- D. 8

Answer: c



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92. When number 1 2 3 4 5 (76 digits) is divided by 16, the remainder will be?

A. 7 B. 0 C. 6 D. 2 Answer: b Watch Video Solution **93.** When number $x^2+7x+15$ is divided by (x - 5), the remainder will be? A. 25 B. 30 C. 75 D. 45 Answer: c



94. When number $x^{40}+31$ is divided by x^4+1 , the remainder will be?

A. 30

B. 32

C. 16

D. 48

Answer: b



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95. When 335 is added to 5A7, the result is 8B2, 8B2 is divisible by 3. What is the largest possible value of A?

A. 8

B. 5

C. 1
D. 4
Answer: d
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96. If the sum of the digits of any integer lying between 100 and 1000 is
subtracted from the number itself, the result is always be:
A. divisible by 6

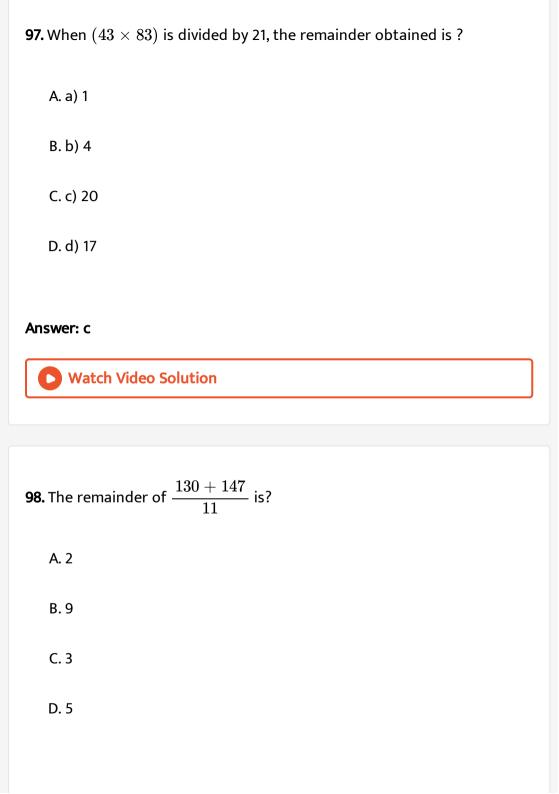
B. divisible by 2

C. divisible by 9

D. divisible by 5

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Answer: c



Answer: a



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99. When 127 imes 139 imes 12653 imes 79 imes 18769 is divided by 5, the remainder obrained is?

- A. 1
- B. 2
- C. 0
- D. 4

Answer: d



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100. When 127 + 139 + 12653 + 79 +18769 is divided by 5, the remainder obtained is?

A. 2 B. 3 C. 1 D. 4 Answer: a Watch Video Solution 101. When (1750 + 1748 + 1752 + 70 + 35) is divided by 5, the remainder obtained is? A. 1 B. 0 C. 16 D. 2 Answer: b

$$1 + 2 + 3 + 4 + 5 + 1000$$

divided by 10, the remaindeer obtained is ?

- A. 3
- B. 1
- C. 2
- D. 9

Answer: a



103. When

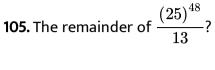
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is

divided by 12, the remainder obtained is?

A. 6 B. 5 C. 9 D. 7 Answer: c Watch Video Solution 104. Find the last two digit in the product of - $39 \times 55 \times 57 \times 24 \times 13872 \times 9871$ A. 2 and 0 B. 1 and 0 C. 1 and 1 D. 2 and 2 Answer: a





A. 12

B. 11

C. 2

D. 1

Answer: d



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106. The remainder of $\frac{(36)^{13}}{7}$?

A. 1

B. 6

C. 2	•
------	---

D. 5

Answer: a



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107. When 2^{21} is divided by 9, the remainder obtained is ?

A. a) 1

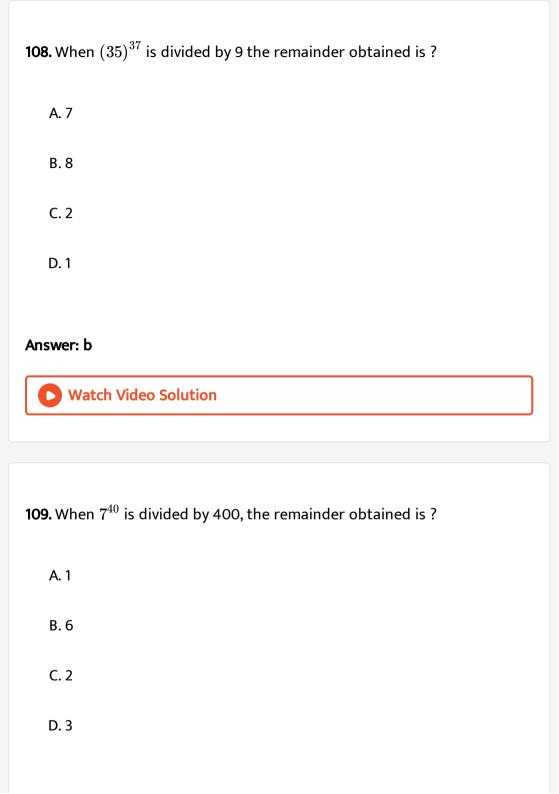
B. b) 2

C. c) 8

D. d) 6

Answer: c





Answer: a



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110. When 2^{42} is divided by 33, the remainder obtained is ?

- A. 29
- B. 7
- C. 4
- D. 2

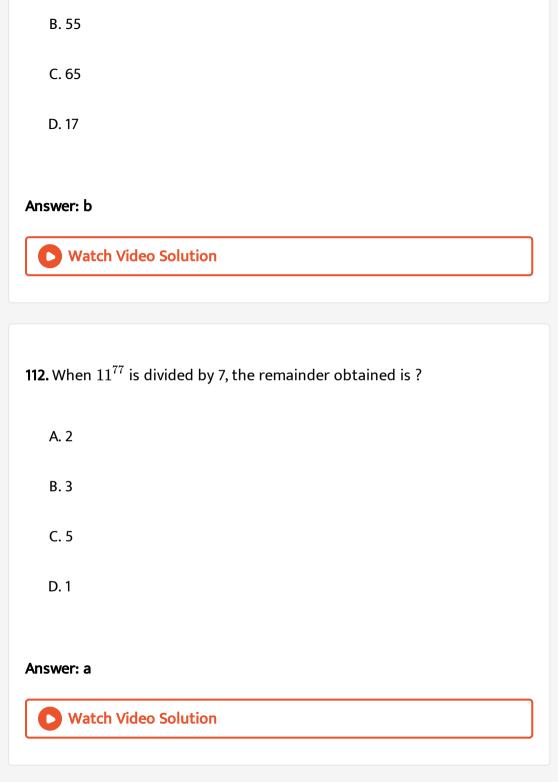
Answer: c



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111. When 3^{55} is divided by 82, the remainder obtained is ?

A. 27



113. $\left(32^{32}\right)^{32}$ is divided by 7 , the remainder obtained is ?

A. a) 4

B. b) 3

C. c) 5

D. d) 2

Answer: a



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114. $\left[48+\left(62\right)^{117}
ight]$ is divided by 9, the remain- der obtained is ?

A. 7

B. 2

C. 4

D. 5

Answer: b



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115. is divisible by?

$$x^{29} - x^{26} - x^{23} + 1$$

A.
$$(x - 1)$$
, but not $(x + 1)$

B.
$$(x + 1)$$
, but not $(x - 1)$

C. Both
$$(x + 1)$$
 and $(x - 1)$

D. Neither (x + 1) nor (x - 1)

Answer: c



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116. If (x + 1) and (x - 1) are the factors of polynomial $ax^3 + bx^2 + 3x + 5$,

then the value of a and b?

B. a = 3, b = 5

C. a = 2, b = 3

D. a = -3, b = -5

Answer: d



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117. When $x^2-7x+15$ is divided by (x - 3), the remainder obtained is ?

- A. 3
- B. 1
- C. 0
- D. 2

Answer: a

118. $x^{51}+16$ is divided by (x +1), the remainder obtained is ? A. 1 B. 2 C. 0 D. 15 Answer: d Watch Video Solution

119. 777777 129 times is divided by 37, the remainder obtained is ?

A. 0

B. 37

C. 1

D.	36

Answer: b



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- 120. 44444444 divided by 13, the remainder obtained is?
 - A. 11
 - B. 2
 - C. 0
 - D. 4

Answer: b



121. When $10^1 + 10^2 + 10^3 + \ldots + 10^{99} + 10^{100}$ is divided by 6, the remainder obtained is

A. 2

B. 4

C. 0

D. 1

Answer: b



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122. When $10^1+10^2+10^3+\ldots +10^{32}$ is divided by 6, the remainder obtained is?

A. 4

B. 5

C. 2

D. 1

Answer: c



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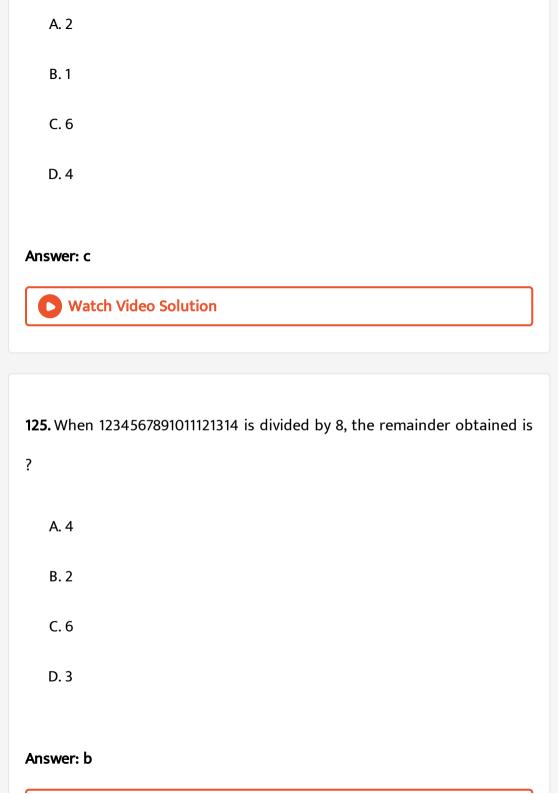
- **123.** When 75^{7575} is divided by 37, the remainder obtained is?
 - A. 1
 - B. 36
 - C. 3
 - D. 7

Answer: a



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124. When 41^{77} is divided by 17, the remainder obtained is ?



126. When 123441 digits, is divided by 8, the remainder obtained is?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: a



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 $1 + 2 + 3 + 4 \dots 100$

, is

divided by 5, the remainder obtained is?

A. 0

127. When

- B. 1
- C. 2
- D. 3

Answer: d



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$$1 + 2 + 3 + 4 \dots 50$$

, is

divided by 12, the remainder obtained is?

A. 2

128. When

- B. 8
- C. 7
- D. 9

Answer: d

129. When 5^{2450} is divided by 126, the remainder obtained is ?

A. 5

B. 25

C. 125

D. 1

Answer: b



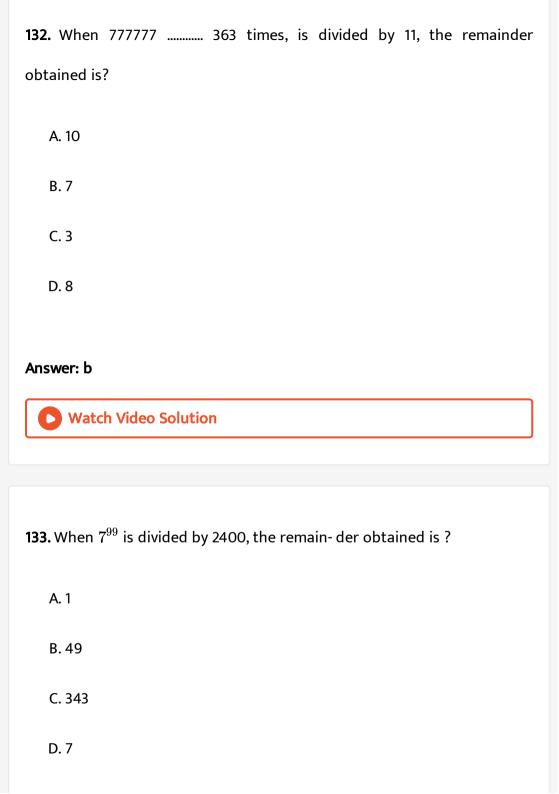
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130. When $10^1+10^2+10^3+\ldots +10^{1000}+10^{1001}$ is divided by 6, the remainder obtained is ?

A. 4

B. 6

C. 2
D. 3
Answer: c
Watch Video Solution
131. When 666666 134 times, is divided by 13, the remainder obtained
is?
A. 1
B. 3
C. 11
D. 9
Answer: a
Watch Video Solution



Answer: c



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134. When 54^{124} is divided by 17, the remainder obtained is ?

- A. 4
- B. 5
- C. 3
- D. 15

Answer: a



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135. When $\left(32^{32}\right)^{32}$ is divided by 9, the remainder obtained is ?

A. 4

B. 7 C. 2 D. 1

Answer: a



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136. $\left(32^{34}\right)^{35}$ divided by 7, the reamainder obtained is ?

A. 5

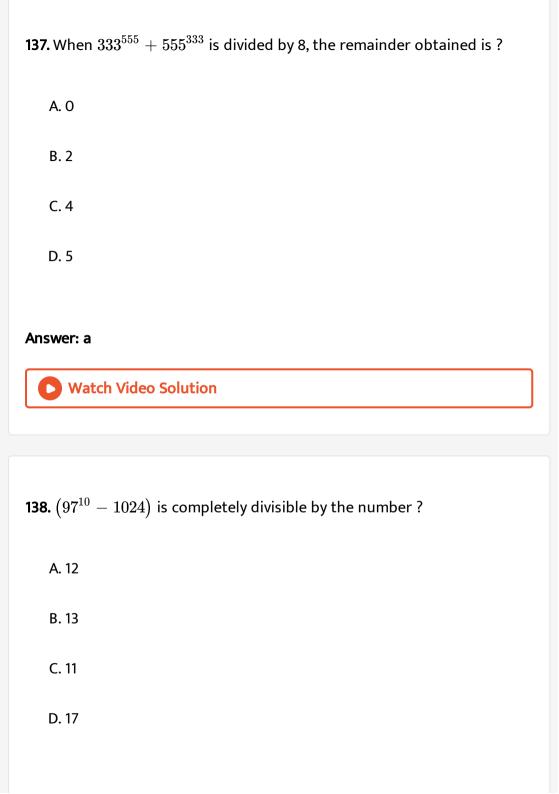
B. 4

C. 6

D. 2

Answer: d





Answer: c



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- **139.** If (x 2) is a factor of $\left(x^2+3qx-2q\right)$, then the value of q ?
 - A. 2
 - B. -2
 - C. -1
 - D. 1

Answer: c



- **140.** For what value of K, (x-1) is a factor of (x^3-K) .
 - A.-1

B. 1

C. 8

D. - 8

Answer: b



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141. $x^{100}+2x^{99}+k$, is divisible by (x + 1), the value of k?

A. 1

B.-3

C. 2

D.-2

Answer: a



142. When (x-a) is a factor of $\left(x^3-3x^2a+2a^2x+p\right)$ then find the value of p is:

A. 0

B. 2

C. 1

D. 4

Answer: a



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143. If (x+2) and (x-1) are factors of $\left(x^3+10x^2+mx+n\right)$ then

A. m = 5, n = -3

B. m = 17, n = -8

C. m = 7, n = -18

D. m = 23, n = -19

Answer: c



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144. If $\left(x^{11}+1\right)$ is divided by (x+1), then the remainder is :

A. 2

B. 0

C. 11

D. 12

Answer: b



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145. If $\left(2x^3+5x^2-4x-6\right)$ is divided by (2x+1), then the remainder obtained is ?

 $\mathsf{C.}-3$

B.3

D. 6

Answer: c

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146. When x^3+5x^2+10k is divided by $\left(x^2+2\right)$ the remainder

obtained is -2x, then the value of k is

A. -2

D.2

147. If $\left(67^{67}+67\right)$ is divided by 68, the re-mainder is:

A. 1

B. 67

C. 63

D. 66

Answer: d



Watch Video Solution

148. When

divided by 8 then the remainder will be?

A. 2

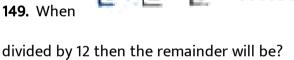
- B. 3
- C. 1

D. 4

Answer: c



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1+2+3+....+100000

- A. 9
- B. 8
- C. 7
- D. 6

Answer: a



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150. When $8483^{115} + 12$ is divided by 84, the remainder will be?

A. 3

B. 5

C. 11

D. 2

Answer: c



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151. When number $10^1 + 10^2 + 10^3 + 10^4 + \dots + 10^{11}$ is divided by 6, the remain- der will be?

A. 4

B. 2

C. 5

D. 1

Answer: b



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A.
$$\frac{4}{9} \left[\frac{10(10^{100} - 1)}{9} - 100 \right]$$

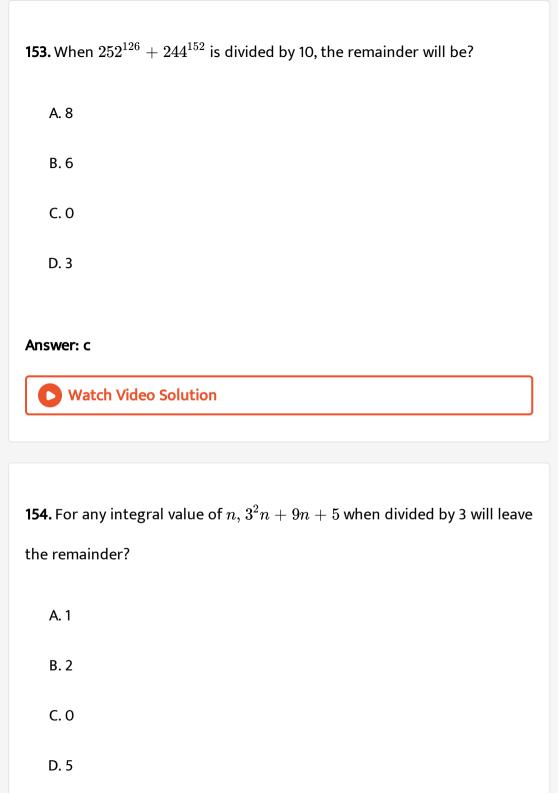
$$\mathsf{B.} \; \frac{4}{9} \left[\frac{10 \big(10^{100} - 1 \big)}{9} - 1 \right]$$

$$\mathsf{C.} \; \frac{4}{81} \left[\frac{10 \big(10^{100} - 1 \big)}{9} - 1 \right]$$

D.
$$rac{2}{81} igg[rac{10 ig(10^{100} - 1ig)}{9} - 100 igg]$$

Answer: a





Answer: b Watch Video Solution

155. Find the remainder when 2^{89} is divided by 89?

A. 1

B. 2

C. 87

D. 88

Answer: b



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156. Find the remainder when 3^{32} is divided by 50.

A. 22

D. 88 Answer: b Watch Video Solution **157.** When $\left(10^{10}+10^{100}+10^{1000}+.......+10^{10000000000}
ight)$ is divided by 7, then the remainder is? A. 1 B. 5 C. 2 D. 3 Answer: b **Watch Video Solution**

B. 41

C. 63

158. When $\left(9^8+1\right)$ is divided by 8, the remainder will be?

A. a)3

B. b)2

C. c)1

D. d)4

Answer: b



Watch Video Solution

159. When $\left(7^{19}+2\right)$ is divided by 6 then remainder will be?

A. 5

B. 3

C. 2

D. 1

Answer: b



Watch Video Solution

160. When $\left(43^{101}+23^{101}
ight)$ is divided by 66, then the remainder will be?

- A. 1
- B. 2
- C. 3
- D. 0

Answer: d



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161. When $(3)^{1989}$ is divided by 7, then the remainder will be?

A. 4



D. 3

Answer: b



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162. When $\left(25\right)^{26}$ is divided by 24, then the remainder will be?

A. a)23

B. b)4

C. c)1

D. d)3

Answer: c



163. What is the remainder when $9^1 + 9^2 + 9^3 + \dots + 9^8$ is divided by 6?

A. 3

B. 2

C. 0

D. 5

Answer: c



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164. What is the remainder when $1044 \times 1047 \times 1050 \times 1053$ is divided by 33?

A. 3

B. 27

C. 30

Answer: c



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165. Find the volume of the following expression.

1 - 2 - 3 + 2 - 3 - 4 ++ 100 terms

A. - 626

B. - 622

C. - 624

D. - 628

Answer: a



166. Find the number of terms in between 300 and 600, which are divisible by 4?

A. 72

B. 74

C. 80

D. 76

Answer: b



- **167.** Find the value of $25^{\left(\frac{1}{3}+\frac{1}{9}+\frac{1}{27}+\ldots\ldots\ldots+\infty\right)}$
 - A. 5
 - B. 25
 - C. 125

Answer: a



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168. Find the sum of n terms of the following expression.

A.
$$\frac{8(10^n - 9^n)}{81}$$

B.
$$\frac{8(10^{n+1}-10-9n)}{81}$$

C.
$$8(10^{n-1}-10)$$

D.
$$8(10^{n+1}-10)$$

Answer: b



169. A ball is droped from a height 500 metre. every time ball is bounced back up to the height 4 / 5th of previous height, till the ball stopped, how much distance is covered by the ball ?

- A. 4500 m
- B. 4000 m
- C. 4800 m
- D. 5000 m

Answer: a



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170. A ball is droped from a height 600 metre. Every time the ball is bounced up to the height 2/3th of the previous height, till the ball stopped, how much distance is covered by ball?

A. 3500 m

- B. 3000 m
- C. 2500 m
- D. 4000 m

Answer: b



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171. A side of a square is 16 cm. A new square is formed by joining the midpoints of sides, again a new square is formed by joining the midpoints of the new square and this process goes on till infiity. Find the total area of such square formed ?

- A. $256cm^2$
- B. $128cm^{2}$
- $\mathsf{C.}\,512cm^2$
- D. $1024cm^2$

Answer: c



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172. The sides of a right angled triangle are 6,8 and 10 cm. A new triangle is formed by joining the mid-points of this triangle, again a new triangle is formed by joining the mid points of the new triangle and this process goes on till infinity. Find the total area of such triangle formed.

- A. a) $64cm^2$
- B. b) $128cm^2$
- $C. c)32cm^2$
- D. d) $16cm^2$

Answer: c



173. Find the sum of n terms of the following series.

A.
$$\frac{10}{9}(10^n+1)+n^2$$

B.
$$\frac{10}{9}(10^n-1)+n^2$$

C.
$$\frac{10}{9}(10^n + 1) + n$$

D.
$$\frac{10}{9}(10^n - 1) + n$$

Answer: b



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174. A man gets ₹60 in first week. and after that every week, he gets ₹3 more than previous week. then how much money will he get on 20th week?

A. ₹1770

B. ₹1620

C. ₹1890

D. ₹1790

Answer: a



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175. A boy charges rupee 1 for first day, rupee 2 for second day and rupee 4 for third and so on. If boy starts work on 1st feb and completed it on 20th feb, then how much amount he get ?

A. 2^{20}

 $B. 2^{20} - 1$

 $\mathsf{C.}\,2^{19}-1$

D. 2^{19}

Answer: b



176. A new triangle is formed by joining the mid-points of an equilateral triangle. Again a new triangle is formed by using the mid-points of this triangle, this process goes on till infinity. If the side of the big equilateral triangle is 24 units, find the total perimeter of such triangle formed ?

- A. 288
- B. 72
- C. 36
- D. 144

Answer: d



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177. Solve the followings:

$$\left[\left(x+rac{1}{y}
ight)^a\left(x-rac{1}{y}
ight)^b
ight]\div\left[\left(y+rac{1}{x}
ight)^a\left(y-rac{1}{x}
ight)^b
ight]$$
 is equal to :

$$\mathsf{D}.\,\mathsf{d})\frac{2}{3}$$

A. $\left(rac{x}{y}
ight)^{a+b}$

B. $\left(\frac{x}{y}\right)^{a-b}$

C. $\left(rac{y}{x}
ight)^{a+b}$

D. $\left(\frac{y}{x}\right)^{a-b}$

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178. If $x^{x^{\frac{3}{2}}}=\left(x^{\frac{3}{2}}\right)^x$, the value of x :

Answer: a

A. a) $\frac{4}{9}$

B. b) $\frac{9}{4}$

 $(C. c) \frac{3}{2}$

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Answer: b

179. If $x^a=yb=z^c$ and $y^2=zx$, then $\frac{1}{a}+\frac{1}{c}$ is equal to -

$$A. \frac{1}{b} + \frac{1}{c} = \frac{2}{a}$$

$$\mathrm{B.}\,\frac{1}{a}+\frac{1}{b}=\frac{1}{c}$$

$$\operatorname{C.}\frac{1}{a} + \frac{1}{c} = \frac{2}{b}$$

$$\mathrm{D.}\,\frac{1}{c}+\frac{1}{a}=\frac{2}{b}$$

Answer: c



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$$rac{1}{1+x^{b-a}+x^{c-a}}+rac{1}{1+x^{c-b}+x^{a-b}}+rac{1}{1+x^{a-c}+x^{b-c}}$$
 is-

of

Answer: a



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- **181.** If $2^x=4^y=8^z$ and xyz=288, the value of $\dfrac{1}{2x}+\dfrac{1}{4y}+\dfrac{1}{8z}$ is
 - A. $\frac{1}{8}$
 - $B. \frac{1}{4}$
 - c. $\frac{1}{15}$
 - D. $\frac{1}{2}$

Answer: a



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182. If $2^x=3^y=6^{-z}$, then the value of $\dfrac{1}{x}+\dfrac{1}{u}+\dfrac{1}{z}$

D. 2

B. 0

C. 1

Answer: b



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- **183.** The value of $\dfrac{4^n imes 20^{m-1} imes 12^{m-n} imes 15^{m+n-2}}{16^m imes 5^{2m+n} imes 9^{m-1}}$ s-A. $\frac{1}{50}$
 - $\mathsf{B.}\;\frac{1}{500}$
 - c. $\frac{1}{100}$ D. $\frac{1}{5}$
- Answer: b

184. Solve the followings:

The value of the expression

$$\frac{(0.3)^{1/3}.\left(\frac{1}{27}\right)^{1/4}.\left(9\right)^{1/6}.\left(0.81\right)^{2/3}}{\left(0.9\right)^{2/3}.\left(3\right)^{-1/2}.\left(\frac{1}{3}\right)^{-2}.\left(243\right)^{-1/4}}\text{ is :}$$

A. 3

 $\mathsf{B.}\,0.03$

 $\mathsf{C.}\ 0.3$

D. 30

Answer: c



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185. Which of the following is correct?

$$A=\sqrt{2}, B=\sqrt[3]{3}, C=\sqrt[4]{4}$$

A.
$$A>B=C$$

B.B > A > C

$$\mathsf{C}.\,B>A=C$$

D.C > A = B

Answer: c



186.

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$$\sqrt{3}-\sqrt{2},\sqrt{4}-\sqrt{3},\sqrt{5}-\sqrt{4},\sqrt{2}-1.$$

Arrange the following in descending

order

A.
$$\left(\sqrt{2}-\sqrt{1}\right)>\left(\sqrt{3}-\sqrt{2}\right)>\left(\sqrt{4}-\sqrt{3}\right)>\left(\sqrt{5}-4\right)$$

$$\mathsf{B.}\left(\sqrt{3}-\sqrt{2}\right)>\left(\sqrt{2}-\sqrt{1}\right)>\left(\sqrt{4}-\sqrt{3}\right)>\left(\sqrt{5}-4\right)$$

C.
$$\left(\sqrt{5}-\sqrt{4}\right)>\left(\sqrt{4}-\sqrt{3}\right)>\left(\sqrt{3}-\sqrt{2}\right)>\left(\sqrt{3}-2\right)$$

D. None of these

Answer: a

187. Arrange in ascending order -

$$\sqrt{8}+\sqrt{5},\sqrt{6}+\sqrt{7},\sqrt{9}+\sqrt{4},\sqrt{11}+\sqrt{2},\sqrt{10}+\sqrt{3}$$

A.
$$\sqrt{8}+\sqrt{5}>\sqrt{6}+\sqrt{7}>\sqrt{9}+\sqrt{4}>\sqrt{11}+\sqrt{2}>\sqrt{10}+\sqrt{3}$$

B.
$$\sqrt{11} + \sqrt{2} > \sqrt{10} + \sqrt{3} > \sqrt{9} + \sqrt{4} > \sqrt{8} + \sqrt{5} > \sqrt{6} + \sqrt{7}$$

C.
$$\sqrt{11} + \sqrt{2} > \sqrt{10} + \sqrt{3} > \sqrt{9} + \sqrt{4} > \sqrt{8} + \sqrt{5} > \sqrt{6} + \sqrt{7}$$

D. None of these

Answer: c



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188. Arrange in descending order -

$$\sqrt{8}-\sqrt{5},\sqrt{6}-\sqrt{7},\sqrt{9}-\sqrt{4},\sqrt{11}-\sqrt{2},\sqrt{10}-\sqrt{3}$$

A.
$$\sqrt{11}-\sqrt{2}>\sqrt{10}-\sqrt{3}>\sqrt{9}-\sqrt{4}>\sqrt{8}-\sqrt{5}>\sqrt{6}-\sqrt{7}$$

В.

C. $\sqrt{10}-\sqrt{3}>\sqrt{8}-\sqrt{5}>\sqrt{11}-\sqrt{12}>\sqrt{9}-\sqrt{4}>\sqrt{6}-\sqrt{7}$

D. None of these

Answer: a



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189. Arrange in descending order -

$$2^{350}, 5^{200}, 3^{300}, 4^{250}$$

A.
$$4^{250} > 3^{300} > 5^{200} > 2^{350}$$

$$\mathsf{B.}\, 2^{350} > 5^{200} > 3^{300} > 4^{250}$$

$$\mathsf{C.}\,3^{300} > 5^{200} > 4^{250} > 2^{350}$$

D. None of these

Answer: a



190. Arrange in descending order -

$$\sqrt[3]{3}, \sqrt[4]{4}, \sqrt[6]{6}, \sqrt[12]{12}$$

A.
$$4^{rac{1}{4}} > 3^{rac{1}{3}} > 12^{rac{1}{12}} > 6^{rac{1}{6}}$$

$$\texttt{B.}\,3^{\frac{1}{3}}>4^{\frac{1}{4}}>6^{\frac{1}{6}}>12^{\frac{1}{12}}$$

C.
$$4^{rac{1}{4}} > 3^{rac{1}{3}} > 12^{rac{1}{12}} > 6^{rac{1}{6}}$$

D. None of these

Answer: b



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191. If $x=\dfrac{1}{5+2\sqrt{6}}$, the value of $\dfrac{1}{x}$ is?

A.
$$5+2\sqrt{6}$$

B.
$$5-2\sqrt{6}$$

$$\mathsf{C.}\,3 + 2\sqrt{3}$$

D. None of these

Answer: b



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192. The value of $\dfrac{\sqrt{5}-2}{\sqrt{5}+2}$ is :

A.
$$9-4\sqrt{5}$$

$$\mathrm{B.}\,9+4\sqrt{5}$$

$$\mathsf{C.}\,5 + 2\sqrt{2}$$

D. None of these

Answer: a



193. $y=\sqrt{7+\sqrt{7+\sqrt{7+\dots}}}$, then which of the following is true?

A.
$$y = 3$$

D.
$$> 4$$

Answer: b



194.
$$\sqrt{12+\sqrt{12+\sqrt{12+\ldots}}}$$
 is equal to

D. d)None of these

Answer: c



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- **195.** If $y=\sqrt{9-\sqrt{9-\sqrt{9.....\infty}}}$, then which of the following is true ?
 - A. a)y = 3
 - B. b)2.5 < y <3
 - C. c) y = 9
 - D.d)y > 4

Answer: b



C. 5

D. 8

A. 7

B. 6

Answer: b



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197. $y=\sqrt{5\sqrt{5\sqrt{5.....\infty}}}$, then value of is?

A. 4

 $\mathsf{B.}\ 2^{\frac{n-1}{2n}}$

C. 5

D. None of these

Answer: c

198. If
$$y=\sqrt{a\sqrt{a\sqrt{a\sqrt{a}}}}$$
, Then value of y?

A.
$$a^{rac{1}{16}}$$

B.
$$a^{\frac{15}{16}}$$

C.
$$a^{\frac{31}{32}}$$

D.
$$a^{\frac{15}{16}}$$

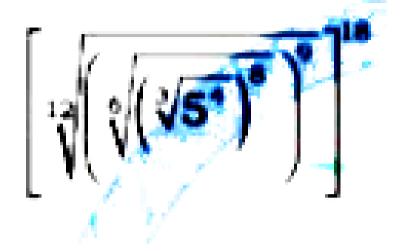
Answer: b

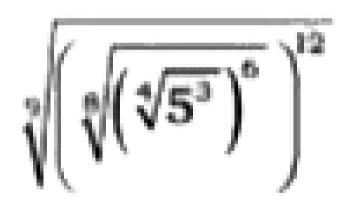


The

value

of





is-

A. $5^{\frac{99}{4}}$

B. $5^{\frac{100}{3}}$

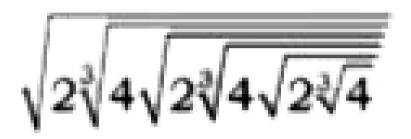
 $\mathsf{C.}\ 2^{\frac{99}{4}}$

D. $3^{\frac{99}{4}}$

Answer: a



value 200. The of



- A. 4
- B. 2
- $\mathrm{C.}\,\sqrt{2}$
- D. $2\sqrt{2}$

Answer: b



201. Square root of $13-4\sqrt{3}$ is ?

A.
$$\sqrt{12}+1$$

B.
$$2\sqrt{3}+7$$

$$\mathsf{C.}\,\sqrt{12}-1$$

D.
$$2\sqrt{3}-7$$

Answer: c



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202. Square root of $139 - 80\sqrt{3}$ is ?

A.
$$5\sqrt{3}+8$$

$$\mathrm{B.}\,5\sqrt{3}-8$$

$$\mathsf{C.}\,5\sqrt{3}+12$$

D.
$$5\sqrt{3}-12$$

Answer: b



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203. It is given that $(2^{32} + 1)$ is completely divisible by a number. That number will certainly divide which of the following numbers?

A. a)
$$2^{96}+1$$

B. b)
$$7 imes 2^{33}$$

C. c)
$$2^{16} - 1$$

D. d)
$$2^{16} + 1$$

Answer: a



204. If
$$x=rac{\sqrt{3}}{2}$$
 , then value of $rac{\sqrt{1+x}}{1+\sqrt{1+x}}+rac{\sqrt{1-x}}{1-\sqrt{1-x}}$ is?

square?

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205. The smallest value by which 63520 is substracted to make it a perfect

A. 16

A. $\frac{\sqrt{2}}{3}$ B. $\frac{2}{\sqrt{3}}$ C. $\frac{\sqrt{2}}{3}$

D. $\frac{2}{3}$

Answer: b

C. 24

Answer: a

206. The value of
$$\left[\sqrt[3]{\sqrt[6]{5^9}}\right]^4 \sqrt[3]{\sqrt[6]{5^9}}^4$$
 is-

- A. 5^2
- $\mathsf{B.}\,5^4$
- $\mathsf{C.}\ 5^8$
- D. 5^{12}

Answer: b



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207. The simplification of $\left(rac{2+\sqrt{3}}{2-\sqrt{3}}+rac{2-\sqrt{3}}{2+\sqrt{3}}+rac{\sqrt{3}-1}{\sqrt{3}+1}
ight)$ is-

A.
$$2-\sqrt{3}$$

B.
$$2+\sqrt{3}$$

c.
$$16 - \sqrt{3}$$

D.
$$40 - \sqrt{3}$$

Answer: c



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208. The value of $\sqrt{rac{\left(\sqrt{12}-\sqrt{8} ight)\left(\sqrt{3}+\sqrt{2} ight)}{5+\sqrt{24}}}$ is-

A.
$$\sqrt{6}-\sqrt{2}$$

B.
$$\sqrt{6} + \sqrt{2}$$

C.
$$\sqrt{6} - 2$$

D.
$$2 - \sqrt{6}$$

Answer: c



C.
$$2\sqrt{10}$$

A. 0

B. $2\sqrt{15}$

Answer: a

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209. $\frac{\sqrt{5}}{\sqrt{3}+\sqrt{2}} - \frac{3\sqrt{3}}{\sqrt{5}+\sqrt{2}} + \frac{2\sqrt{2}}{\sqrt{5}+\sqrt{3}}$ is equal to-

210.
$$\frac{1}{\sqrt{3} + \sqrt{4}} + \frac{1}{\sqrt{4} + \sqrt{5}} + \frac{1}{\sqrt{5} + \sqrt{6}} + \frac{1}{\sqrt{6} + \sqrt{7}} + \frac{1}{\sqrt{7} + \sqrt{8}} + \frac{1}{\sqrt{8} + \sqrt{8}}$$

A. a)
$$\sqrt{3}$$

B. b)
$$3\sqrt{3}$$

C. c)
$$3-\sqrt{3}$$

D. d)
$$5-\sqrt{3}$$

Answer: c



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211. Simplify

$$\frac{1}{\sqrt{100}-\sqrt{99}}-\frac{1}{\sqrt{99}-\sqrt{98}}+\frac{1}{\sqrt{98}-\sqrt{97}}-\frac{1}{\sqrt{97}-\sqrt{96}}+\dots\dots+$$

B. 9

C. 13

D. 11

Answer: d



212.
$$\left\{ \left(\, -2 \right)^{\, \left(\, -2 \right)} \, \right\}^{\, \left(\, -2 \right)}$$
 is equal to :

- A. 16
- B. 8
- C. 8
- D. -1

Answer: a



- **213.** $\frac{3\sqrt{2}}{\sqrt{6}+\sqrt{3}}-\frac{2\sqrt{6}}{\sqrt{3}+1}+\frac{2\sqrt{3}}{\sqrt{6}+2}$ is equal to-
 - A. 3
 - B. 2
 - C. 0
 - D. $\sqrt{3}$

Answer: c



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214. If $x=1+\sqrt{2}+\sqrt{3}$, then the value of $\left(x+\dfrac{1}{x-1}\right)$ is

A. a)
$$1+2\sqrt{3}$$

B. b)
$$2+\sqrt{3}$$

C. c)3 +
$$\sqrt{2}$$

D. d)
$$2\sqrt{3} - 1$$

Answer: a



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215. If a, b are rational numbers and

 $a\sqrt{b}\sqrt{3}=\sqrt{98}+\sqrt{108}-\sqrt{48}-\sqrt{72}$, then the values of a and b are?

B. 1,3

C. 2,1

A. 1,2

D. 2,3

Answer: a



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216. If $\sqrt[3]{a} = \sqrt[3]{26} + \sqrt[3]{7} + \sqrt[3]{63}$, then-

A. alt 729 but agt 216

B. alt 216

C. agt 729

D. agt 729

Answer: a

217. The value of
$$\sqrt{2^3\sqrt{4\sqrt{2^3\sqrt{4......}}}}$$
 is-

- A. 2
- $B. 2^{2}$
- $\mathsf{C.}\ 2^4$
- $\mathsf{D.}\ 2^5$

Answer: a



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218. If (3x - 2y) : (2x + 3y) = 5 : 6 then the value of $\left(\frac{\sqrt[3]{x} + \sqrt[3]{y}}{\sqrt[3]{x} - \sqrt[3]{y}}\right)$ is-

- A. $\frac{1}{25}$
 - B. 5
 - c. $\frac{1}{5}$

Answer: d



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- **219.** If $11\sqrt{n}=\sqrt{112}+\sqrt{343}$, then value of n is?
 - A. 3
 - B. 11
 - C. 13
 - D. 7

Answer: d



- B. 3
- C. 2
- D. 1

Answer: b



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221. Which is the correct statement :-

A.
$$\sqrt{2}+\sqrt{5}=\sqrt{7}$$

B.
$$\sqrt{2}+\sqrt{5}\leq\sqrt{7}$$

C.
$$\sqrt{2}+\sqrt{5}<\sqrt{7}$$

D.
$$\sqrt{2}+\sqrt{5}>\sqrt{7}$$

Answer: d



222. Value of $\sqrt{7}\sqrt{7\sqrt{7}\sqrt{7}}$

A. 7

B. 3

C. 4

D. 2

Answer: a



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223. Find the value of $\sqrt{12-\sqrt{12-\sqrt{12-...}}}$

A. 3

B. 4

 $\mathsf{C.}-2$

Answer: a



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- **224.** $\sqrt[4]{\frac{0.00002025}{0.00005329}}$ is equal to
 - A. $\sqrt{\frac{45}{73}}$
 - B. $\sqrt{\frac{43}{75}}$
 - c. $\sqrt{\frac{34}{57}}$
 - D. $\sqrt{\frac{73}{45}}$

Answer: a



- A. 4

B. 5

- C. 6
- D. 8

Answer: b



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- **226.** $3\sqrt[3]{32} 5\sqrt[3]{4} + \sqrt[3]{500}$ is equal to
 - A. $4\sqrt[3]{6}$
 - B. $3\sqrt{24}$
 - $\mathsf{C.}\,6\sqrt[3]{4}$
 - D. 916

Answer: c

227.
$$\sqrt[3]{\frac{72.9}{0.4096}}$$
 is equal to

A. 0.5625

B. 5.625

C. 182

D. 13.6

Answer: b



- **228.** The value of $\dfrac{\sqrt{80}-\sqrt{112}}{\sqrt{45}-\sqrt{63}}$ is :
 - A. $\frac{3}{4}$
 - $\mathsf{B.}\,1\frac{3}{4}$
 - C. $1\frac{1}{3}$

D.
$$1\frac{7}{9}$$

Answer: c



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229.
$$\left(\sqrt{72}-\sqrt{18}\right)+\sqrt{12}$$
 is equal to :

A. $\sqrt{6}$

B. $\sqrt{3}/2$

 $\mathsf{C.}\,\sqrt{2}/3$

D. $\sqrt{6}/2$

Answer: d



A. 0.306 B. 0.0306 C. 11.122 D. 11.322 Answer: d Watch Video Solution 231. Find the value of $\sqrt[3]{175.616} + \sqrt[3]{0.175616} + \sqrt[3]{0.000175616}$ A. 0.168 B. 62.16 C. 6.216 D. 6.116 Answer: c

232. If
$$5^{\sqrt{x}}+12^{\sqrt{x}}=13^{\sqrt{x}}$$
 , the value of x is

- A. $\frac{25}{4}$
- B. 4
- C. 9
- D. 16

Answer: b



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233. Find the value of $\sqrt{32}-\sqrt{128}+\sqrt{50}$ upto three places of decimal

- (correct value)
 - A. 1.732
 - B. 1.141

C. 1.414

D. 1.441

Answer: c



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234. The value of $\sqrt[3]{1372} \times \sqrt[3]{1458} \div \sqrt[3]{343}$ is equal to

A. a)18

B. c)15

C. c)13

D. d)12

Answer: a



235. If
$$\sqrt{15}=3.88$$
 , the value of $\sqrt{\frac{5}{3}}$ is

A.
$$1.29\bar{3}$$

Answer: a



236.

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By assuming $\sqrt{13}=3.605$ (approximate) $\sqrt{130}=11.40$

(approximate), find the value of $\sqrt{1.3} + \sqrt{1300} + \sqrt{0.013}$

D. 37.164

Answer: b



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237. How much greater $5\sqrt{7}-2\sqrt{5}$ from $3\sqrt{7}-4\sqrt{5}$?

A.
$$5(\sqrt{7}+\sqrt{5})$$

B.
$$\sqrt{7} + \sqrt{5}$$

C.
$$2(\sqrt{7}+\sqrt{5})$$

D.
$$7(\sqrt{2}+\sqrt{5})$$

Answer: c



239. The value of
$$\sqrt{11+2\sqrt{30}}-rac{1}{\sqrt{11+2\sqrt{30}}}$$
 is

A. $\frac{1}{2}-5\sqrt{3}$

 $\mathsf{C.}\,2-5\sqrt{3}$

B. 1

D. 0

Answer: b

A. $2\sqrt{5}$

B. $2\sqrt{6}$

 $C.1 + \sqrt{6}$

D. $1 + \sqrt{5}$

240. If x =
$$8 + 2\sqrt{15}$$
, find $\sqrt{x} + \frac{1}{\sqrt{x}}$

A.
$$2\sqrt{3}$$

B.
$$2\sqrt{5}$$

$$\operatorname{C.}\frac{3}{2}\sqrt{5}+\frac{\sqrt{3}}{2}$$

D.
$$\dfrac{\sqrt{5}}{2}+\dfrac{\sqrt{3}}{2}\sqrt{3}$$

Answer: c



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241. Which no. is the greatest number from the following:

$$\sqrt[3]{4},\sqrt[6]{15},\sqrt[4]{6}$$
 and $\sqrt[12]{245}$

A.
$$\sqrt[3]{4}$$

B.
$$\sqrt[4]{6}$$

C.
$$\sqrt[6]{15}$$

D.
$$\sqrt[12]{245}$$

Answer: a



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242.
$$\left(rac{1+\sqrt{2}}{\sqrt{5}+\sqrt{3}} + rac{1-\sqrt{2}}{\sqrt{5}-\sqrt{3}}
ight)$$
 Simplify

A.
$$\sqrt{5}+\sqrt{6}$$

$$\mathrm{B.}\,2\sqrt{5}+\sqrt{6}$$

C.
$$\sqrt{5}-\sqrt{6}$$

D.
$$2\sqrt{5}-3\sqrt{6}$$

Answer: c



243. The value of
$$\left(\frac{\sqrt{5}+\sqrt{3}}{\sqrt{5}-\sqrt{3}}\right)^2+\left(\frac{\sqrt{5}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}\right)^2$$
 is equal to

- A. 64
- B. 62
- C. 66
- D. 68

Answer: b



- **244.** The smallest no. in the following is $\left(0.5\right)^2,\,\sqrt{0.49},\,\sqrt[3]{0.008},\,0.23$
 - A. $(0.5)^2$
 - B. $\sqrt{0.49}$
 - C. $\sqrt[3]{0.008}$
 - D. 0.23

Answer: c



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245. Arrange the following no. in ascending order $(2.89)^{0.5}, 2-(0.5)^2, \sqrt{3}$ and $\sqrt[3]{0.008}$ we get

A.
$$2 - (0.5)^2$$
, $\sqrt{3}$, $\sqrt[3]{0.008}$, $(2.89)^{0.5}$

B.
$$\sqrt[3]{0.008}$$
, $(2.89)^{0.5}$, $\sqrt{3}$, $2 - (0.5)^2$,

C.
$$\sqrt[3]{0.008}$$
, $\sqrt{3}$, $(2.89)^{0.5}$, $2 - (0.5)^2$,

D.
$$\sqrt{3}$$
, $\sqrt[3]{0.008}$, $2 - (0.5)^2$, $(2.89)^{0.5}$

Answer: b



- B. 1
- C. 2
- D. 3

Answer: a



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247. The simplification of

$$rac{3\sqrt{2}}{\sqrt{3}+\sqrt{6}}-rac{4\sqrt{3}}{\sqrt{6}+\sqrt{2}}+rac{\sqrt{6}}{\sqrt{2}+\sqrt{3}}$$
 is

A. a)
$$\sqrt{6}$$

- B. b) $\sqrt{3}$
- C. c) $\sqrt{2}$
- D. d) $6\sqrt{2}$ $2\sqrt{6}$

Answer: d

248. The square root of $\left(3-\sqrt{5}\right)$ is

A.
$$\left(\sqrt{3}-5^{\frac{1}{4}}
ight)$$

B.
$$rac{1}{2}ig(\sqrt{5}-\sqrt{3}ig)$$

C.
$$\frac{1}{2} \left(\sqrt{5} - 1 \right)$$

D.
$$\frac{1}{\sqrt{2}}(\sqrt{5}-1)$$

Answer: d



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249. If $x=\sqrt{-\sqrt{3}+\sqrt{3+8\sqrt{7+4\sqrt{3}}}}$ where x>0, then the value of x is equal to:

यदि $x=\sqrt{-\sqrt{3}+\sqrt{3+8\sqrt{7+4\sqrt{3}}}}$ तो x का मान ज्ञात करे: जहा x>0

C. 108 D. 198 Answer: d

Answer: b

A. 1

B. 2

C. 3

D. 8

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- **250.** The value of $\left(3+2\sqrt{2}\right)^{-3}+\left(3-2\sqrt{2}\right)^{-3}$ is equal to
 - A. 189
 - B. 180

251. Find the value of $\sqrt{8}+2\sqrt{32}-3\sqrt{128}+4\sqrt{50}$ if $\sqrt{2}=1.414$ is

A. 8.484

B. 8.526

C. 8.426

D. 8.876

Answer: a



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252. The simplification of

$$\left[rac{1}{\sqrt{2}+\sqrt{3}-\sqrt{5}}+rac{1}{\sqrt{2}-\sqrt{3}-\sqrt{5}}
ight]$$
 is equal to

A. 1

 $\mathrm{B.}~\sqrt{2}$

$$\mathsf{C.} \; \frac{1}{\sqrt{2}}$$

D. 0

Answer: c



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253. If $a=\sqrt{8}-\sqrt{7}, b=\sqrt{7}-\sqrt{6}$ and $c=\sqrt{6}-\sqrt{5}$ then which

answer is right?

A. a)a
$$> b > c$$

B. b)a < b < c

C. c)b>a >c

D. d)a > c > b

Answer: b



254. If
$$a=\frac{\sqrt{5}+1}{\sqrt{5}-1}$$
 and b= $\frac{\sqrt{5}-1}{\sqrt{5}+1}$ then the value of $\frac{a^2+ab+b^2}{a^2-ab+b^2}$ is A. $\frac{3}{4}$

C.
$$\frac{3}{5}$$

B. $\frac{4}{3}$

Answer: b

- 255. $rac{1}{\sqrt{3}+\sqrt{4}}+rac{1}{\sqrt{4}+\sqrt{5}}+rac{1}{\sqrt{5}+\sqrt{6}}+rac{1}{\sqrt{6}+\sqrt{7}}+rac{1}{\sqrt{7}+\sqrt{8}}+rac{1}{\sqrt{8}+\sqrt{8}}+rac{1}{\sqrt{8}}+rac{1}{\sqrt{8}}+$
- is equal to?
- A. $\sqrt{3}$
- B. $3\sqrt{3}$ C. $(3 - \sqrt{3})$

D.
$$5-\sqrt{3}$$

Answer: c



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- **256.** If $\sqrt{32} + \sqrt{72} = 14.14$ then $\sqrt{18} + \sqrt{50} + \sqrt{98} + \sqrt{1250}$ =?
 - A. 45.45
 - B. 56.56
 - C. 67.67
 - D. 78.78

Answer: b



257.
$$\frac{1}{30} + \frac{1}{42} + \frac{1}{56} + \frac{1}{72} + \frac{1}{90} + \frac{1}{110} = ?$$

B.
$$\frac{1001}{999}$$
C. $\frac{1001}{3}$

A. $\frac{5}{999}$

A. $\frac{2}{27}$

B. $\frac{7}{9}$

c. $\frac{5}{27}$

D. $\frac{6}{55}$

Answer: d

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258. $\left(2-\frac{1}{3}\right)\left(2-\frac{3}{5}\right)\left(2-\frac{5}{7}\right)......\left(2-\frac{997}{999}\right)=?$

D. None of these

Answer: c

259. Arrange $\frac{4}{5}$, $\frac{7}{8}$, $\frac{6}{7}$, $\frac{5}{6}$ in the ascending order :

A.
$$\frac{4}{5}$$
, $\frac{7}{8}$, $\frac{6}{7}$, $\frac{5}{6}$

$$\mathsf{B.}\,\frac{5}{6},\frac{6}{7},\frac{7}{8},\frac{4}{5}$$

$$\mathsf{C.}\,\frac{4}{5},\,\frac{5}{6},\,\frac{6}{7},\,\frac{7}{8}$$

D.
$$\frac{7}{8}$$
, $\frac{6}{7}$, $\frac{5}{6}$, $\frac{4}{5}$

Answer: c



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260. Arrange $\frac{3}{5}$, $\frac{7}{9}$, $\frac{11}{13}$ in descending order.

A.
$$\frac{3}{7}$$
, $\frac{7}{9}$, $\frac{11}{13}$

$$\mathrm{B.}\ \frac{7}{9},\,\frac{3}{5},\,\frac{11}{13}$$

c.
$$\frac{11}{13}$$
, $\frac{7}{9}$, $\frac{3}{5}$

D.
$$\frac{11}{13}$$
, $\frac{3}{5}$, $\frac{7}{9}$

Answer: c



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- 261. Which of the following order of the fractions is in descending form?
 - A. $\frac{5}{9}$, $\frac{8}{15}$, $\frac{11}{17}$, $\frac{7}{11}$
 - B. $\frac{5}{9}$, $\frac{7}{11}$, $\frac{8}{15}$, $\frac{11}{17}$ $C. \frac{11}{17}, \frac{7}{11}, \frac{5}{9}, \frac{8}{15}$
 - D. $\frac{11}{17}$, $\frac{7}{11}$, $\frac{8}{15}$, $\frac{5}{9}$

Answer: c



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262. The simplification of $\left(0.\ \overline{1}\right)^2 \left\{1-9{\left(0.1\overline{6}\right)}^2\right\}$ is

A.
$$\frac{-1}{162}$$
B. $\frac{1}{108}$

C.
$$\frac{7696}{10^6}$$
D. $\frac{1}{109}$

Answer: b

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$$\left[\left(1 - \frac{1}{3} \right) \left(1 - \frac{1}{4} \right) \left(1 - \frac{1}{5} \right) \left(1 - \frac{1}{6} \right) \dots \left(1 - \frac{1}{99} \right) \left(1 - \frac{1}{100} \right) \right] = ?$$

A.
$$\frac{2}{99}$$

$$\mathsf{B.}\;\frac{1}{25}$$

C.
$$\frac{1}{50}$$
D. $\frac{1}{100}$

Answer: c

A.
$$\frac{1}{n}$$

$$\mathsf{B.}\;\frac{2}{n}$$

$$\mathsf{C.}\,\frac{2(n-1)}{n}$$

D.
$$\frac{2}{(n)(n-1)}$$

Answer: b



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of $1^2 + 3^2 + 5^2 + \dots + 19^2$ is equal to:

265. If $1^2+2^2+3^2+\ldots +x^2=rac{(x)(x+1)(2x+1)}{6}$, then the value

A. a)1330

B. b)2100

C. c)1485

D. d)2500

Answer: a



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266. The value $\frac{5}{2^2.\,3^2} + \frac{7}{3^2.4^2} + \frac{9}{4^2.\,5^2} + \frac{11}{5^2.\,6^2} + \frac{13}{6^2.\,7^2} + \frac{15}{7^2.\,8^2} + \frac{17}{8^2.\,9^2} + \frac{19}{9^2.\,10^2}$ is equal to

A.
$$\frac{1}{100}$$

B.
$$\frac{6}{25}$$

c.
$$\frac{101}{100}$$

D. 1

Answer: c



$$\frac{1}{9} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56} + \frac{1}{72}$$

- A. $\frac{1}{2}$
- B. 0
- $c. \frac{1}{9}$
- D. $\frac{1}{2520}$

Answer: b



- **268.** $\frac{1}{3} + \frac{1}{15} + \frac{1}{35} + \frac{1}{63} + \frac{1}{99} + \frac{1}{143} = ?$
 - A. a) $\frac{6}{13}$
 - $B. b) \frac{5}{7}$
 - C. c) $\frac{6}{11}$

D. d)
$$\frac{11}{6}$$

Answer: c



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269. Find the sum of first five terms in the sequence

$$\frac{1}{1 \times 4} + \frac{1}{4 \times 7} + \frac{1}{7 \times 10} + \dots$$

A.
$$\frac{1}{32}$$

$$\mathsf{B.}\;\frac{7}{16}$$

c.
$$\frac{5}{16}$$

D.
$$\frac{1}{210}$$

Answer: b



270. The value of
$$\left(1+\frac{1}{2}\right)\left(1+\frac{1}{3}\right)\left(1+\frac{1}{4}\right)....\left(1+\frac{1}{120}\right)$$
 is

A. 30

B. 40.5

C. 60.5

D. 121/2

Answer: a



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value 271. The of $rac{5.42x5.42+5.42 imes24}{32.71 imes32.71-27.29 imes27.29}\divrac{6.54 imes6.54-3.46 imes3.46}{3.08 imes5+3.08 imes45}$ is equal to

A. 0.3

B. 0.4

C. 0.7

Answer: b



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272. The value of $\left[\frac{1 \times 3 \times 9 + 2 \times 6 \times 18 + 3 \times 9 \times 27 + \dots}{1 \times 5 \times 25 + 2 \times 10 \times 50 + 3 \times 15 \times 75 + \dots}\right]^{1/3}$

is

- A. $\frac{2}{5}$
- $\mathsf{B.}\;\frac{5}{7}$
- $\mathsf{C.}\,\frac{3}{5}$
- D. $\frac{7}{9}$

Answer: a



273. The simplification of
$$\cfrac{1.\ \bar3\times1.\ \bar3\times1.\ \bar3\times1.\ \bar3-1}{1.\ \bar3\times1.\ \bar3+1.\ \bar3+1}$$
 is

- A. $\frac{1}{3}$
- B. $1\frac{1}{3}$
- c. $\frac{37}{91}$ $\mathsf{D.}\;\frac{27}{91}$

Answer: a



- **274.** 156.25 \div 25 \div 5 = ?
 - A. 125
 - B. 1.25
 - C. 0.125
 - D. 12.5

Answer: c



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- **275.** 2100 \div ? \div 84 = 1
 - A. 28
 - B. 25
 - C. 24
 - D. 22

Answer: c



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276. $\left(\frac{1.2.4 + 2.4.8 + 3.6.12 + \dots}{1.3.9 + 2.6.18 + 3.9.27 + \dots}\right)^{1/3} = ?$

A. $\frac{1}{3}$

D.
$$\frac{1}{2}$$

 $\mathsf{B.}\;\frac{2}{3}$

 $\mathsf{C.}\ \frac{3}{4}$

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277.
$$1+\frac{1}{10}+\frac{2}{10^2}+\frac{2}{10^3}+\frac{2}{10^4}+\dots$$
 ?

B. 0.121

D. 1. $\overline{12}$

C. 1.21



Answer: c

278. Find tHe correct value upto 5 places of decimal of $1-\frac{1}{20}+\frac{1}{20^2}-\frac{1}{20^3}+\dots$

Α. 1.03

B. 0.95238

C. 0.95239

D. 10.5

Answer: a



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279. If 47.2506 = 4A + $\frac{7}{B}$ + 2C + $\frac{5}{D}$ +6E then value of 5A + 3B + 6C + D +

3E is

A. a)53.6003

B. b)53.603

C. c)153.6003

D. d)213.003

Answer: b



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280.
$$\left(1 - \frac{1}{2^2}\right) \left(1 - \frac{1}{3^2}\right) \dots \left(1 - \frac{1}{9^2}\right) \left(1 - \frac{1}{10^2}\right) = ?$$

A. '5/12'

B. $\frac{1}{2}$

c. $\frac{11}{20}$

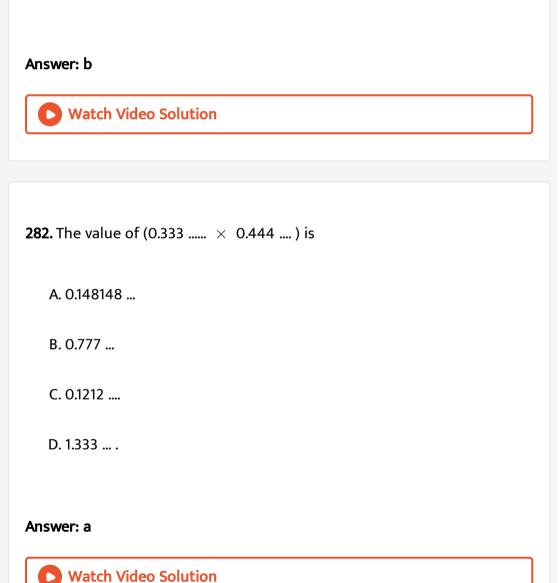
D. $\frac{7}{10}$

Answer: b



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281. $\left(1\frac{1}{2}+11\frac{1}{2}+111\frac{1}{2}+1111\frac{1}{2}\right)$ is equal to



A. 1236

B. $1234\frac{1}{2}$

C. 618

D. 617

283.
$$\frac{1}{20}$$
 +

283.
$$\frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56} + \frac{1}{72} + \frac{1}{90} + \frac{1}{110} + \frac{1}{132} = ?$$

- A. $\frac{1}{8}$
- $\mathsf{B.}\,\frac{1}{7}$
- $\mathsf{C}.\,\frac{1}{6}$
- D. $\frac{1}{10}$

Answer: b



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284. Find the square root of $\dfrac{(0.064-0.008)(0.16-0.04)}{\left(0.16+0.08+0.04\right)\left(0.4+0.2\right)^3}$

$$\operatorname{A.}\frac{2}{3}$$

$$\mathsf{B.}\;\frac{1}{3}$$

D.
$$\frac{3}{2}$$

Answer: c



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- **285.** The greatest number among 3^{50} , 4^{40} , 5^{30} , and 6^{20} is
 - A. 4^{40}
 - $\mathsf{B.}\,5^{30}$
 - $C.6^{20}$
 - $D. 3^{50}$

Answer: a



286. The number which can be written in the form of n (n+1) (n+2), where n is a natural number is

A. 7

B. 5

C. 3

D. 6

Answer: a



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287. 1 + 2 + 3 + + 49 + 50 + 49 + 48 + + 3 + 2 + 1 is equal to.

A. 1250

B. 2500

D. 5000

C. 2525

Answer: a



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288. Which sequence is in desending order:

- A. $\frac{2}{3}$, $\frac{3}{5}$, $\frac{7}{9}$, $\frac{9}{11}$, $\frac{8}{9}$
- $\mathrm{B.}\,\frac{3}{5},\frac{2}{3},\frac{7}{9},\frac{9}{11},\frac{8}{9}$
- $\mathsf{C}.\,\frac{8}{9},\frac{9}{11},\frac{7}{9},\frac{2}{3},\frac{3}{5}$
- D. $\frac{3}{5}$, $\frac{2}{3}$, $\frac{9}{11}$, $\frac{7}{9}$, $\frac{8}{9}$

Answer: c



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289. The value of $\left(0.34\overline{68}+.17\overline{32}\right)$ is

A. 0.52 $\overline{01}$



C. 0.5

 $\mathrm{D.}\ 0.5\bar{1}$

Answer: b



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290. 0.52525252 is equal to

 $\text{A.}\ \frac{52}{100}$

Answer: a



291. If a * b = $a^2 + b^2$ - ab then find out the value of [(3 * 2) - (6 * 5)].

$$\mathsf{A.}-24$$

 $\mathsf{B.}-22$

C. 24

D. 22

Answer: d



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292. If $\dfrac{a}{3}=\dfrac{b}{2}$ then find the value of $\dfrac{2a+3b}{3a-2b}$

A.
$$\frac{17}{5}$$

B.
$$\frac{12}{5}$$

c.
$$\frac{11}{5}$$

$$\text{D.}\ \frac{13}{5}$$

Answer: b



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- **293.** $(11^3 + 12^3 + 13^3 + \dots + 30^3) = ?$
 - A. 231200
 - B. 223100
 - C. 213020
 - D. 213200

Answer: c



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294. The sum of digits of a two digit no. is 8. If the digits are interchanged the new no. is 54 less than the given no. Find the number.

A. 71 B. 61 C. 17 D. 16 Answer: a Watch Video Solution 295. Find the biggest number among the following- $0.9, 0.\overline{9}, 0.0\overline{9}, 0.\overline{09}$ A. a)0. $\overline{09}$ B. b) $0.0\bar{9}$ C. c)0. $\bar{9}$ D. d)0.9 Answer: b

296. What is the descending order of
$$\frac{11}{17}$$
, $\frac{7}{11}$, $\frac{8}{15}$, $\frac{5}{9}$?

A.
$$\frac{11}{17} > \frac{7}{11} > \frac{5}{9} > \frac{8}{15}$$

B.
$$\frac{11}{17} > \frac{8}{15} > \frac{7}{11} > \frac{5}{9}$$
C. $\frac{11}{17} > \frac{5}{9} > \frac{7}{11} > \frac{8}{15}$

D.
$$\frac{11}{17} > \frac{7}{11} > \frac{8}{15} > \frac{5}{9}$$

Answer: a



297. The value of $\dfrac{0.2 \times 0.2 \times 0.2 + 0.3 \times 0.3 \times 0.3}{0.4 \times 0.4 \times 0.4 + 0.6 \times 0.6 \times 0.6}$ is

A.
$$\frac{1}{8}$$

$$\mathsf{B.}\;\frac{1}{6}$$

c.
$$\frac{1}{4}$$

D.
$$\frac{1}{5}$$

Answer: b



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298. On simplification of $\frac{{{{\left({2.644} \right)}^2} - {{\left({2.356} \right)}^2}}}{{0.288}}$ we get :

- A. 1

B. 4

- C. 5
- D. 6

Answer: d



 $\mathsf{B.}\;\frac{9}{5}$

C. 4.75

D. 8.5

Answer: a



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300. If $p imes q = p + q + rac{p}{q}$, then find the value of 8 imes 2.

A. 20

B. 10

C. 14

D. 16



Answer: c

301. If $a\Delta b=a-b-(-2)(a\&b>0)$ then, find the value of $4\Delta 3$.

A. 1

B. - 1

C. 3

D.-3

Answer: a



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 $302.72519 \times 9999 = ?$

A. 725117481

B. 674217481

C. 685126481

D. None of these

Answer: a



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- **303.** The simplification of 3. $\overline{36} 2$. $\overline{05} + 1$. $\overline{33}$ equals:
 - A. 2.6
 - B. 2. $\overline{61}$
 - C. 2.64
 - D. 2. $\overline{64}$

Answer: c



D. $\overline{5.54}$ Answer: d Watch Video Solution **305.** $(6.5 \times 6.5 - 45.5 + 3.5 \times 3.5)$ is equal to A. 10 B. 9 C. 7 D. 6 Answer: c Watch Video Solution

A. $1.\overline{03}$

 $\mathsf{B.}\ 1.\overline{53}$

 $C. 5.\overline{53}$

306.
$$1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{7} + \frac{1}{14} + \frac{1}{28}$$
 is equal to

A. 2.5

B. 2

C. 3

D. 3.5

Answer: c



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307. Which one of the following is correct?

- (i) $13^{31} > 31^{13}$
- (ii) $10^{100} < 100^{10}$
- (iii) $23^2 < 32^2$

A. a)(i) and (ii)

B. b)(i) and (iii)

C. c)(ii) and (iii)

D. d)(i) only

Answer: a



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308. Find the sum of first 20 terms of the sequence

 $\frac{1}{5\times 6} + \frac{1}{6\times 7} + \frac{1}{7\times 8} + \dots$

A. 0.16

C. 16

B. 1.6

D. 0.016

Answer: d



309.
$$\left[1+(2+1)\left(2^2+1\right)\left(2^4+1\right)\left(2^8+1\right)\left(2^{16}+1\right)\left(2^{32}+1\right)\right]=?$$

A. $2^{64}-1$

B. $2^{64} + 1$

 $\mathsf{C.}\,2^{64}$

D. 2^{128}

Answer: c



310. The value of
$$\frac{1+\frac{1}{2}}{1-\frac{1}{2}} \div \frac{4}{7} \left(\frac{2}{5} + \frac{3}{10} \right)$$
 of $\frac{\frac{1}{2} + \frac{1}{3}}{\frac{1}{2} - \frac{1}{2}}$ is

A.
$$\frac{2}{3}$$

$$\operatorname{B.}\frac{3}{2}$$

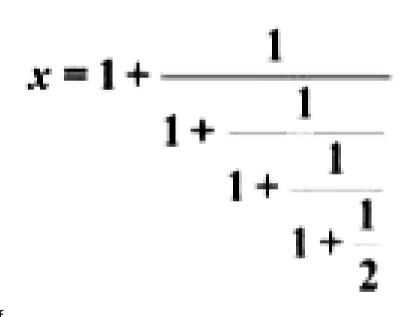
C.
$$18\frac{3}{8}$$

D.
$$37\frac{1}{2}$$

Answer: b



Watch Video Solution



, find

311. if

 $2x + \frac{7}{4} = ?$

A. 3

B. 4

C. 5

D. 6

Answer: b



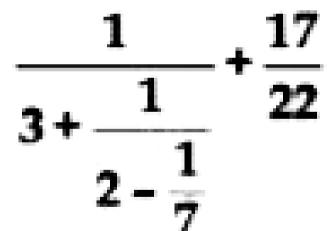
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312.

The

value

of



 $\mathsf{A.}\;\frac{12}{22}$

 $\mathsf{B.}\;\frac{22}{5}$

 $\mathsf{C.}\;\frac{5}{22}$

D. 1

Answer: d

Watch Video Solution

A. 7

313. If * represents a number then the value of * in $5\frac{3}{*} \times 3\frac{1}{2} = 19$ is :

- B. 4

314.
$$\frac{13}{48} = ?$$

$$\frac{1}{3 + \frac{1}{\left(1 + \frac{1}{16}\right)}}$$
A.

$$\frac{1}{2+\frac{1}{1+\frac{1}{8}}}$$

$$\frac{1}{3 + \frac{1}{1 + \frac{1}{1 + \frac{1}{6}}}}$$

C. 1 + -

$$\frac{1}{3 + \frac{1}{1 + \frac{1}{2 + \frac{1}{4}}}}$$

D.

Answer: c



Watch Video Solution

315. The value of $1\div[1\div 1\div\{1\div 1\div (1\div 1\div 2)\}]$ is

- A. 1
- $\mathsf{B.}\,\frac{5}{8}$
- C. 2
- D. $\frac{1}{2}$

Answer: b



Watch Video Solution

316. Find the value of $\dfrac{1}{5}+999\dfrac{494}{495} imes 99$

A. 90000

- B. 99000
- C. 90900
- D. 99990

Answer: c



Watch Video Solution

feet = 12: 35, find out the number of hens, if the number of heads alone is

317. A man has some hens and cows. If the number of heads: number of

A. 28

48.

- B. 26
- C. 24
- D. 22

Answer: d

318. The length of a road is one kilo metre. The number of plants required

for plantation at a gap of 20 metres in both sides of the road is

A. 102

B. 100

C. 51

D. 50

Answer: a



Watch Video Solution

319. In a school $\frac{1}{10}$ of the boys are same in number as $\frac{1}{4}$ of the girls and 5

 $\frac{5}{8}$ of the girls are same in numbers as $\frac{1}{4}$ of the boys. The ratio of the

boys to girls in that school is

A. 2:1 B.5:2C. 4:3 D. 3:2 Answer: d **Watch Video Solution** 320. There are 50 boxes and 50 persons. Person 1 keeps 1 marble in every box. Person 2 keeps 2 marbles in every 2nd box, person 3 keeps 3 marbles in every third box. This process goes on till person 50 keeps 50 marbles in the 50th box. Find the total number of marbles kept in the 50th box. A. 43 B. 78 C. 6 D. 93

Answer: b



Watch Video Solution

321. A man engaged a servant on the condition that he would pay him Rs90 and a turban after service of one year. He served only for nine months and received the turban and an amount of Rs 65. The price of turban is

- A. 25
- B. 18.75
- C. 10
- D. 2.5

Answer: b



322. A school group charters three identical buses and occupies $\frac{4}{5}$ of the seats. After a $\frac{1}{4}$ of the passengers leave, the remaining passengers use only two of the buses. The fraction of the seats on the two buses that are now occupied is

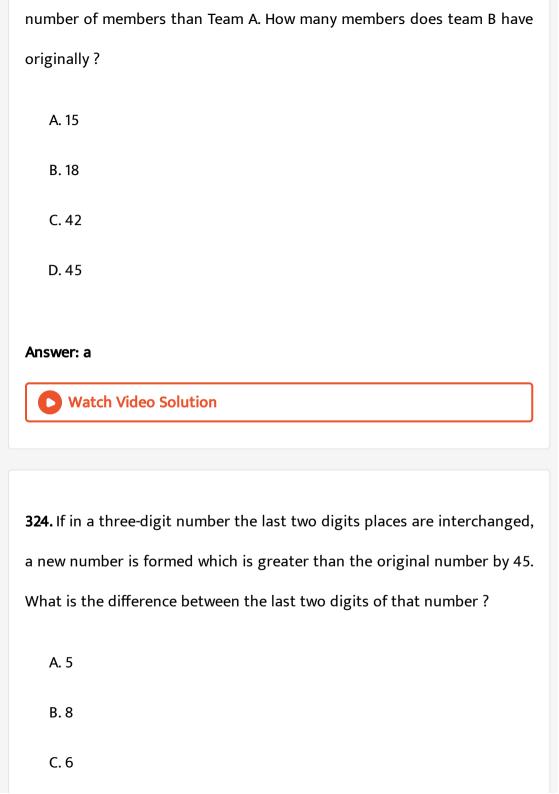
- A. $\frac{8}{9}$
- $\mathsf{B.}\,\frac{7}{9}$
- $\mathsf{C.}\,\frac{7}{10}$
- D. $\frac{9}{10}$

Answer: b



Watch Video Solution

323. There are 2 teams A and B. If 3 people are shifted from Team A to Team B, then Team B has thrice the number of members than Team A. If 2 people are shifted from Team B to Team A, then Team B has double the



Answer: b



Watch Video Solution

325. The rent of a guest house for first 3 days is 50 per day, for next 5 days is 100 per day and for further days is 300 per day. Initial registration Fee is 50. If a guest paid 300 in total then for how many days he stayed in guest house?

- A. 4
- B. 7
- C. 8
- D. 10

Answer: d



326. Some friends decided to go on a picnic and expected expense is assumed as 768. Four friends did not come for which each paid 16 extra. How many friends went for picnic?

- A. 24
- B. 16
- C. 12
- D. 8

Answer: c



Watch Video Solution

327. In a cricket match highest score in a innings is 2 / 9 of the total score and second highest score is 2 / 9 of the rest score. If difference between highest and second highest scores is 8 runs. Then the total score is?

A. 160

- B. 172
- C. 180
- D. 162

Answer: d



Watch Video Solution

328. A man distributes all his money among his three sons such that he gives 7,500 to his elder son, $\frac{3}{10}$ part of his total money to his second son and third son get sum of money received by both first and second sons. what is the total money?

- A. 30000
- B. 35000
- C. 18750
- D. 37500

Answer: c



Watch Video Solution

329. The fare of a auto for first 30 km. is Rs.8 per km. for next 60 km, is Rs.

5 per km, and after for every 5 km, fare is Rs. 8.

Satish saves $\frac{1}{5}$ part of his total money after paying for Rs. 320 km. of journey. How much money he had in the starting?

- A. a)1035
- B. b)1135
- C. c)1240
- D. d)1320

Answer: b



330. If Atul finds that he is twelfth from the right in a line of boys and fourth from the left, how many boys should be added to the line such that there are 28 boys in the line?

- A. 12
- B. 13
- C. 14
- D. 20

Answer: b



Watch Video Solution

331. In a fraction, when numerator increases by 1 and denominator increases by 2, then the fraction becomes $\frac{2}{3}$ But when numerator increases by 5 and denominater increases by 1 then fraction becomes $\frac{5}{4}$. The original fraction is?

- A. a) $\frac{3}{7}$
- B. b) $\frac{5}{8}$
- $(C. c) \frac{5}{7}$ D. d) $\frac{6}{7}$

Answer: c



Watch Video Solution

332. In a class of 60 students each boy gives as much money as the number of girls and each girl gives as much money as the number of boys. If the total collection of money is 1600. Then find the number of girls in the class?

- A. 30, 20
- B. 25, 20
- C. 50, 60
 - D. 20, 40

Answer: d



Watch Video Solution

333. From a book of 20 pages, one page has been disappeared. The sum of rest pages numbers is 195. Find numbers on both sides of left page.

- A. 9, 10
- B. 5,6
- C. 11,12
- D. 7,8

Answer: d



Watch Video Solution

334. In a examination , a student was asked to find $\frac{3}{14}$ of a certain number , By mistake , he found $\frac{3}{4}$ of it. His answer was 150 more than the

correct answer . The given number is :
A. 180
B. 240
C. 280
D. 290
Answer: c
Watch Video Solution
335. The price of 10 chairs is equal to that of 4 tables. The price of 15
chairs and 2 tables together is 4000. The total price of 12 chairs and 3
tables is
A. 3750
B. 3840

Answer: d



Watch Video Solution

336. A student was asked to find $\frac{5}{16}$ a of a number. By mistake he (5)/(6)` found of that number. His answer was 250 more than the correct answer. Find the given number.

- A. 300
- B. 480
- C. 450
- D. 500

Answer: b



337. A number of friends decided to go on a picnic and planned to spend 108 on eatables. Three of them however did not turn up. As a consequence each one of the remaining had to contribute 3 extra. The number of them who attended the picnic was:

- A. 15
- B. 12
- C. 9
- D. 6

Answer: c



Watch Video Solution

338. One-fourth of a tank holds 135 litres of water. What part of the tank is full if it contains 180 litres of water?

Answer: c



Watch Video Solution

339. A man spends a $\frac{1}{4}$ th of his in come on food $\frac{2}{3}$ rd of it on house rent and the remaining income which is Rs 630 on other commodities. Find his house rent.

- A. 5040
- B. 3520
- C. 4890
- D. 4458

Answer: a



340. It $\frac{3}{4}$ of the difference of $2\frac{1}{4}$ and $1\frac{2}{3}$ is subtracted from $\frac{2}{3}$ of $3\frac{1}{4}$ the result is

A.
$$-\frac{48}{83}$$

$$\mathsf{B.}\;\frac{48}{83}$$

$$\mathsf{C.}-\frac{83}{48}$$

D.
$$\frac{83}{48}$$

Answer: d



Watch Video Solution

341. 380 mangoes are distributed among some boys and girls who are 85 in number. Each boy gets four mangoes and cach girl gets five. The number of boys is

A. 15

- B. 38
- C. 40
- D. 45

Answer: d



Watch Video Solution

342. A train covers the distance 200 meters 500 and 900 min 1 min, 2 minutes and 3 minutes respectively. In how many time it covers the distance of 2 km if it covers the distance every minute in the same order?

- A. 4 minutes
- B. $4\frac{1}{2}$
- C. 5 min
- D. $5\frac{1}{2}$ min

Answer: c



343. 8 persons met on an occasion. If they shook hands with each other.

One time, how many times did the hands shake?

- A. a)16
- B. b)36
- C. c)56
- D. d)28

Answer: d



Watch Video Solution

344. Each member of a picnic party contributed twice as many rupees as the total number of members and the total collection was Rs 3042. The number of members present in the party was

A. 2
B. 32
C. 40
D. 39
Answer: d
Watch Video Solution
345. In a basket the apples becomes double of itself after each minute. In
40 minutes the basket fill completely, then in how much time the basket
is filled 1 / 8 of the total?
A. 35 minute
B. 36 minutes
C. 37 minutes
D. 38 minutes

Answer: c



Watch Video Solution

346. A boy was asked to multiply a no. by 53. The boy made a mistake by multiplying the no. by 35 instead of 53 and got the answer 1206 less then the right answer. The no to be multiplied was :

- A. 62
- B. 67
- C. 74
- D. 76

Answer: b



347. In a classroom, if 6 students per bench are assigned to accommodate all students, one more bench will be required. However, if 7 students are accommodated per bench, there would be space left for 5 students. What in the number of student in the class?

- A. a)30
- B. b)42
- C. c)72
- D. d)none of these

Answer: c



Watch Video Solution

348. 3/4 of a tank is filled with water. If 30 liters of water is subtracted to the tank, then if becomes empty. The capacity of the tank is

A. 36 liters

- B. 42 liters
- C. 40 liters
- D. 38 liters

Answer: c



Watch Video Solution

weight is 19 Kg. If the pot is 2 / 3 full of water then the weight is

349. A pot which is full of water, weight is 28 Kg. When the pot 1 / 4 full,

- A. 8 Kg.
- B. 20 Kg
- C. 24 Kg
- D. 18.6 Kg.

Answer: c



350. In an examination, a student got 150 marks if he answered all the 75 question. He got 4 marks for each right answer and 2 marks are deducted for watch wrong answer from his score. Total right answer are

- A. 45
- B. 50
- C. 55
- D. 48

Answer: b



Watch Video Solution

351. In a week, there are 5 working days and each workers has to work 8 hours per day. A worker gets 2.40 per working and 3.20 per extra hour. If he earned 432 in 4 weeks then how many hour he worked?

- A. 160
- B. 175
- C. 180
- D. 195

Answer: b



Watch Video Solution

352. A person has divided his total money in his will in such a-way-that half of it goes to his wife, $2/3^{rd}$ of the remaining among his three sons equally and the rest among his four daughter equally. If each daughter gets 20,000, how much money will each son get?

- A. 48233.33
- B. 50333.33
- C. 53333.33
- D. data is incomplete

Answer: c



View Text Solution

353. In an office 1/3 of total employees are female and 1/2 of female have children . If 3/4 of total males are married and 2/3 of married males have children, then how many workers have no children.

- A. $\frac{5}{18}$
- B. $\frac{4}{9}$
- c. $\frac{11}{18}$
- $\mathsf{D.}\;\frac{17}{36}$

Answer: c



354. A man covered distance 3.5 km from a place A to B in which $1\frac{2}{3}$ Km, distance was covered by cycle, $1\frac{1}{6}$ Km, by scooter and the rest on foot.

How much part of total distance did he cover on foot?

- A. $\frac{3}{19}$
- $\mathsf{B.}\;\frac{4}{21}$
- $\operatorname{C.}\frac{2}{3}$
- D. $\frac{5}{21}$

Answer: b



Watch Video Solution

355. In a group of boys and dogs, the number of heads is 7 and number of

legs is 20. How many boys and dogs are there re-spectively?

- A. 2 boys, 5 dogs
 - B. 3 boys, 5 dogs

- C. 4 boys, 3 dogs
- D. 5 boys, 2 dogs

Answer: c



Watch Video Solution

356. A man read 2/5 of a book on one day and 1 / 3 more than the first read on second day. If the remained pages are 15 on third day then the total pages in the book are

- A. 100
- B. 105
- C. 225
- D. 250

Answer: c



357. A common factor of $\left(13^7 + \ +11^7 \right)$ and $\left(13^5 +11^5 \right)$ is

A. 24

 ${\rm B.}\,13^5+11^5$

 $\mathsf{C.}\,13^2+11^2$

D. None of these

Answer: a



Watch Video Solution

358. Which of the following is a perfect square?

A. 3497497

B. 4587632

C. 1046529

D. 1034758

Answer: c



Watch Video Solution

359. If $\dfrac{1}{25.25}=0.396$ then the value of $\dfrac{1}{0.0002525}$ will be

- A. 3960
- B. 39600
- $\mathsf{C.}\ 0.0000396$
- D. 0.000396

Answer: b



Watch Video Solution

360. The numerator of a fraction is 3 less than its denominator. If 7 is added in the numerator and 2 is subtracted from the denominator, the fraction becomes 2. Find the fraction.

$$\text{A. a)}\frac{5}{8}$$

B. b)
$$\frac{8}{11}$$

C. c)
$$\frac{7}{10}$$

D. d)
$$\frac{3}{13}$$



Watch Video Solution

361. In a fraction the denominator is 2 more than 3 times the numerator.

If 1 is added in both numerator and denominator, the fraction becomes

- 1/3. What is the fraction.
 - A. a) $\frac{4}{13}$
 - B. b) $\frac{3}{11}$
 - $\mathsf{C.\,c)}\frac{5}{13}$
 - $\mathsf{D.\,d})\frac{5}{11}$

Answer: b



Watch Video Solution

362. In a two digit no. ten's digit is 5 more than unit digit. After subtracting 5 times the sum of digits from the number, the digits are interchanged. Find out the sum of both digits.

- A. a)9
- B. b)11
- C. c)7
- D. d)13

Answer: a



363. In a three-digit number, the digit at the hundred's place is two times the digit at the unit's place and the sum of the digits is 18. If the digits are reversed, the number is reduced by 396. The difference of hundred's and ten's digit of the number is

- A. 4
- B. 2
- C. 6
- D. 3

Answer: b



- **364.** $999\frac{1}{7} + 999\frac{2}{7} + 999\frac{3}{7} + 999\frac{4}{7} + 999\frac{5}{7} + 999\frac{6}{7}$ is simplified to:
 - A. 5997
 - B. 5979

C. 5994

D. 2997

Answer: a



Watch Video Solution

365. Find the value of $\dfrac{9|3-5|-5|4|\div 10}{-3(5)-2 imes 4\div 2}$

A.
$$\frac{9}{10}$$

$$\mathrm{B.}-\frac{8}{17}$$

$$\mathsf{C.} - \frac{16}{19}$$

D.
$$\frac{4}{7}$$

Answer: c



366. The value of
$$\left(1+\frac{1}{x}\right)\left(1+\frac{1}{x+1}\right)\left(1+\frac{1}{x+2}\right)\left(1+\frac{1}{x+3}\right)$$

is equal to \

$$\mathsf{A.}\,1+\frac{1}{x+4}$$

B. x + 4

c.
$$\frac{1}{x}$$

D. $\frac{x+4}{x}$

Answer: d



367. If
$$\frac{2a+b}{a+4b}=3$$
, the value of $\frac{a+b}{a+2b}$ is equal to

A.
$$\frac{5}{9}$$

\.
$$\overline{9}$$

$$\mathsf{B.}\,\frac{2}{7}$$

c.
$$\frac{4}{3}$$

D.	10
υ.	9

Answer: d



Watch Video Solution

- **368.** How many digits are in the square root of 1166400?
 - A. 5
 - B. 3
 - C. 6
 - D. 4

Answer: d



$$rac{1}{\sqrt{100}-\sqrt{99}}-rac{1}{\sqrt{99}-\sqrt{98}}+rac{1}{\sqrt{98}-\sqrt{97}}-rac{1}{\sqrt{97}-\sqrt{96}}+.....$$

B. 9

Answer: d

Watch Video Solution

370. If $\sqrt[q]{0.014 imes 0.14x} = 0.014 imes 0.14 \sqrt[q]{y}$ then $\frac{x}{y}$ is equal to

A. a) 0.000196

D. d)0.196

Answer: b



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371. The descending order of $\sqrt[3]{4}, \sqrt{2}, \sqrt[6]{3}$ and $\sqrt[4]{5}$ is

A.
$$\sqrt[4]{4}>\sqrt[4]{5}>\sqrt{2}>\sqrt[6]{3}$$

B.
$$\sqrt[4]{5}>\sqrt[3]{4}>\sqrt[6]{3}>\sqrt{2}$$

C.
$$\sqrt{2}, \sqrt[6]{3}> > \sqrt[3]{4}> \sqrt[4]{5}$$

D.
$$\sqrt[6]{3}>\sqrt[4]{5})>\sqrt[3]{4}>\sqrt{2}$$

Answer: a



A. xyz

B. \sqrt{xyz}

C. $\frac{1}{x}yz$

D. 1

Answer: d



Watch Video Solution

373.
$$\left(rac{x^a}{x^b}
ight)^{1/ab} imes \left(rac{x^b}{x^c}
ight)^{1/bc} imes \left(rac{x^c}{x^a}
ight)^{1/ca}=?$$

A. 1

B. $x^{1/abc}$

 $C_{\cdot} x^{1/(ab+bc+ca)}$

D. None of these

Answer: a



374. The value of
$$\left[\frac{\left(\sqrt{6}\right)^5 \times \left(\sqrt{6}\right)^{-3}}{\left(\sqrt{6}\right)^{-2}}\right]^{3/2}$$
 is

- A. 216
- B. 36
- c. $\frac{1}{36}$
- D. 1296



375.
$$\sqrt{4 + \sqrt{4 - \sqrt{4 + \sqrt{4 - \dots \infty}}}} = ?$$

A.
$$\dfrac{\sqrt{13}+1}{2}$$

$$\text{B.}\,\frac{\sqrt{17}+1}{2}$$

C.
$$\frac{\sqrt{11}+1}{2}$$
D. $\frac{\sqrt{21}+1}{2}$



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376.
$$\sqrt{4+\sqrt{4-\sqrt{4+\sqrt{4-.....\infty}}}}=?$$

A.
$$\dfrac{\sqrt{21}+1}{2}$$

$$\text{B.}\,\frac{\sqrt{11}+1}{2}$$

$$\mathsf{C.}\,\frac{\sqrt{17}+1}{2}$$

D.
$$\frac{\sqrt{13}-1}{2}$$

Answer: d



377. Find the value of
$$\left[1-2(1-2)^{-1}
ight]^{-1}$$

A.
$$\frac{1}{3}$$

$$\mathsf{B.}-\frac{1}{3}$$

C. 1

D.
$$\frac{1}{2}$$



Watch Video Solution

378. By what least number 1323 be multiplied to obtain a number which is

A. a)2

perfect cube?

- B. b)3
- C. c)5
- D. d)7

Answer: d



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379. Write 0.0000007826 in scientific form.

A. a)
$$7.826 imes 10^{-7}$$

B. b)
$$78.26 \times 10^{-8}$$

C. c)
$$782.6 imes 10^{-9}$$

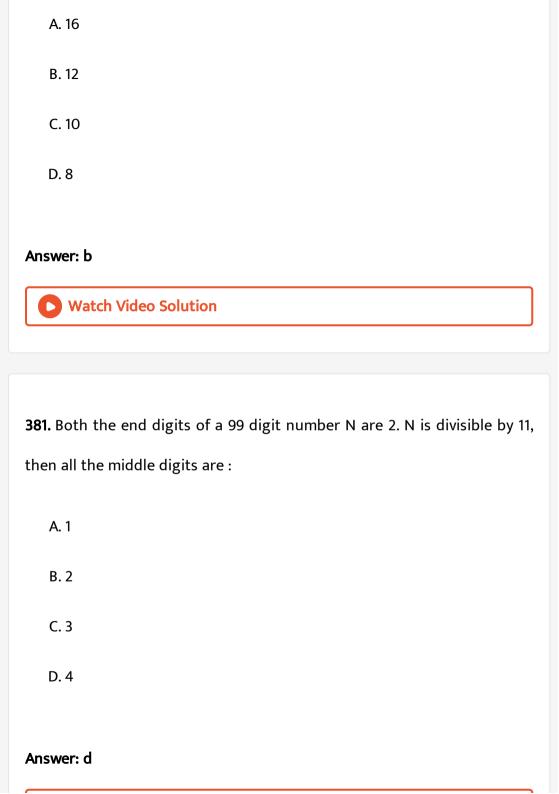
D. d)
$$0.7826 imes 10^{-6}$$

Answer: a



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380. If n is a whole number greater than 1, then $n^2 \big(n^2 - 1 \big)$ is always divisible by :





382. Find the sum of all positive multiples of 3, less than 50

A. 400

B. 404

C. 408

D. 412

Answer: c



383. Among the following statements, the statement which is not correct

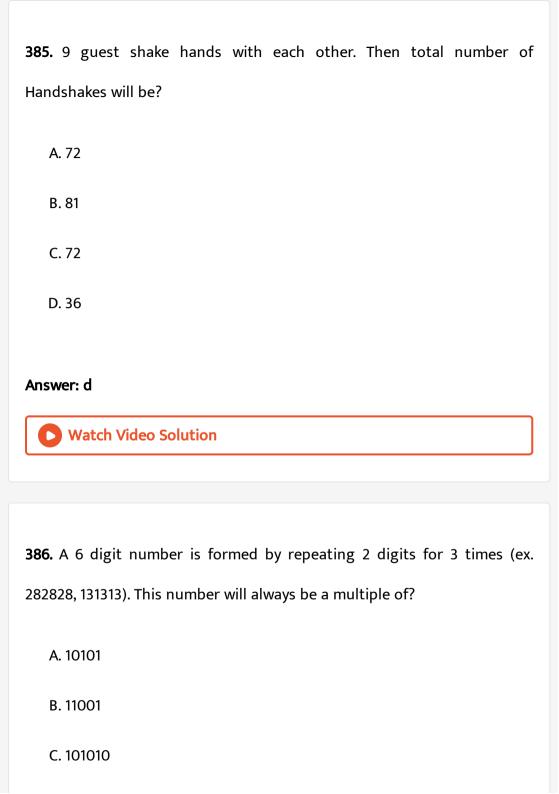
is:

A. a) Every rational number is a real number

B. b)Every real number is a rational number

D. d)Every natural number is an integer Answer: b Watch Video Solution 384. The digit at Hundred's place value of 17! is A. 1 B. 0 C. 2 D. 3 Answer: b Watch Video Solution

C. c)Every integer is a rational number



D.	1	1	1	00



Watch Video Solution

387. In the expansion of $(6)^{10} \times (7)^{12} \times (5)^{55} \times (11)^{121}$, numbers of prime numbers are?

- A. 213
- B. 222
- C. 211
- D. 214

Answer: a



388. A student is asked to multiply a number by $\frac{11}{23}$. By mistake, he divides the number by $\frac{11}{23}$ and get result 1224 more. Find the number?

- A. 253
- B. 506
- C. 759
- D. 1012

Answer: c



Watch Video Solution

389. In a college, $\frac{1}{5}$ th of the girls and $\frac{1}{8}$ th of the boys took part in a social camp. The part of students in the college who took part in the camp is :

- A. $\frac{13}{2}$
- $\mathsf{B.}\;\frac{13}{4}$

c.
$$\frac{2}{13}$$

D. Can't be determine

Answer: c



Watch Video Solution

390. How many natural numbers below 660 are divisible by 5 and 11 but

not by 3?

A. a)8

B. b)9

C. c)10

D. d)11

Answer: a





- A. n is an even natural number
- B. n is an odd natural number
- C. n is a natural number
- D. nisaprime

Answer: c



Watch Video Solution

392. How many numbers between 300 and 785 are exactly divisible by 13?

- A. 39
- B. 40
- C. 41
- D. None of the above

Answer: d



Watch Video Solution

393. Find the smallest prime number of three digits.

- A. 103
- B. 107
- C. 109
- D. None of these

Answer: d



Watch Video Solution

394. The value of $\frac{\frac{1}{3}\div\frac{1}{3}\times\frac{1}{3}}{\frac{1}{3}\div\frac{1}{3}\mathrm{of}\frac{1}{3}}-\frac{1}{9}$ is

A. 0



C. $\frac{1}{3}$ D. $\frac{1}{9}$

Answer: a



Watch Video Solution

395. The value of $999\frac{998}{999} imes 999$ is

A. 990809

B. 998996

C. 999824

D. 998999

Answer: d



396.
$$0. \overline{16} = ?$$

- A. $\frac{16}{99}$
- $\mathsf{B.}\;\frac{16}{90}$
- $\mathsf{C.}\ \frac{4}{25}$
- D. None of these



Watch Video Solution

397. 2. $\overline{43} + 3. \overline{62} + 3. \overline{18} = ?$

- A. 8. $\overline{24}$
- $\mathsf{B.}\ 9.\ \overline{24}$
- $\mathsf{C.\,8.}\ \overline{23}$
- D. None of these

Answer: b



Watch Video Solution

398. $2.6\overline{1} + 9.2\overline{4} + 10.6\overline{3} = ?$

A. 22. $\overline{48}$

B. 21. $\overline{48}$

 $C. 22.4\bar{8}$

D. None of these

Answer: a



Watch Video Solution

399. $0.5\overline{76} = ?$



c.
$$\frac{571}{990}$$

$\mathsf{D.}\;\frac{571}{900}$

Answer: c



Watch Video Solution

400. 3.0072=?

A.
$$\frac{29772}{9900}$$

B.
$$\frac{29772}{9999}$$

c.
$$\frac{29772}{9990}$$

D. None of these

Answer: a

