



MATHS

BOOKS - MBD

PLAYING WITH NUMBERS



1. Write all the factors of the following number

:



2. Write all the factors of the following number:

15



3. Write all the factors of the following number :





4. Write all the factors of the following number :

27

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5. Write all the factors of the following number :

12

6. Write all the factors of the following number:

20

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7. Write all the factors of the following number

18

:



8. Write all the factors of the following number :

23

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9. Write all the factors of the following number :





12. Write first five multiples of :



13. Match the items in column 1 with the items

in column 2:

Column 1	Column 2
(i) 35	(a) Multiple of 8
(ii) 15	(b) Multiple of 7
(iii)16	(c) Multiple of 70
(iv) 20	(d) Factor of 30
(v) 25	(e) Factor of 50
	(f) Factor of 20





16. State whether the followin statements are

True of False:

the sum of three odd numbers is even.



17. State whether the following statements are

True of False:

The sum of two odd numbers and one even

numberis even.



18. State whether the followin statements are True of False:

The product of three odd numbers is odd.



19. State whether the followin statements are

True of False:

If an even number is divided by 2,the quotient

is always odd.



20.

State whether the following statements are

True or False:

All prime numbers are odd.



21. State whether the followin statements are

True of False:

Prime numbers do not have any factors.





22. State whether the following statements

are True or False:

Sum of two prime numbers is always even.

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23. State whether the followin statements are

True of False:

2 is the only even prime number.



24. State whether the following statements are True of False:

All even numbers are composite numbers.

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25. State whether the followin statements are

True of False:

The product of two even numbers is always

even.



26. The numbers 13 and 31 are prime numbers.Both these numbers have same digits1 and 3 .Find such pairs of prime numbers upto 100.

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27. Write down separately the prime and composite numbers less than 20.





28. What is the greatest prime number

between 1 and 10?

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29. Express the following as the sum of two

odd primes:

44

30. Express each of the following numbers as a

sum of two odd primes :

36



31. Express the following as the sum of two odd primes:

24

32. Express the following as the sum of two odd primes:

18



33. Give three pairs of prime numbers whose diffrene is 2.[Remark:Two prime numbers whose difference is 2 are called twin primes]

23



36. Which of the following numbers are prime?



prime number between them.

39. Express each of the following numbers as the sum of three odd primes:

21



40. Express each of the following numbers as

the sum of three odd primes:

31

41. Express each of the following numbers as

the sum of three odd primes:

53



42. Express each of the following numbers as

the sum of three odd primes:

61

43. Write five pairs of prime numbers below 20

whose sum is divisible by 5. (Hint 3 + 7 = 10)



44. Fill in the blanks in the following:

A number which has only two factors is called

а

45. Fill in the blanks in the following:

A number which has more than two factors is called a ...



46. Fill in the blanks in the following:

1 is neither nor...... .



47. Fill in the blanks in the following:

the smallest prime number is



48. Fill in the blanks in the following:

the smallest even number is



49. Write all prime numbers between:

5 and 35

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50. Write all prime numbers between:

70 and 100

51. Write all prime numbers between:

40 and 80

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52. Write all prime numbers between:

77 and 158

204



54. Which of the following number are prime?



139



56. Which of the following number are prime?



27



58. Which of the following number are prime?



57



60. Which of the following number are prime?



61. Can a conposite number be odd?If yes,write

the smallest odd composite number.

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62. the digits's in unit's place of a number is 5.if the number lies between 150 and 200 ,will,it be composite or prime?



63. Can you find an even number greater tha 4

which cannot be expressed as a sum of two

odd numbers ?



64. Express each of the following numbers as

the sum of three odd primes:

31

65. Express each of the following as a sum of

three odd primes:

35



66. Express each of the following odd numbers

as the sum of three odd prime numbers

49

67. Express each of the following odd numbers

as the sum of three odd prime numbers

63

1



68. List all such pairs of primes less than 10 whose difference is :

69. List all such pairs of primes less than 10

whose difference is :

3.



70. List all prime numbers less than 100 an

having 3 as the digit at its unit place.



71. Write down the smallest :

odd comosite numbers

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72. Write down the smallest :

even compoite numbers
73. Write down the smallest :

even prime numbers.

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74. Which of the following statements are

true?

1 is the smallest prime number

75. Which of the following statements are true?

If a number is a prime, it must be odd.



76. Which of the following statements are true?

the sum of two prime number is always a

prime number.

77. Which of the following statements are true?

If two numbers are co-prime,at least one of them must be prime number.

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78. Using divisibility tests,determine which of the following numbers are divisible by 2,by3,by4,by5 (say yes or no): 128

79. Using divisibility tests, determine which of the following numbers are divisible by 4, by 8:

572

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80. Using divisibility tests, determine which of

the following numbers are divisible by 4,by 8:

726352



81. Using divisibility tests,determine which of the following numbers are divisible by 4,by 8:

5500



82. Using divisibility tests, determine which of

the following numbers are divisible by 4,by 8:

6000

the following numbers are divisible by 4,by 8:

12159



84. Using divisibility tests, determine which of

the following numbers are divisible by 4,by 8:

14560



85. Using divisibility tests,determine which of the following numbers are divisible by 4,by 8: 21084



86. Using divisibility tests, determine which of the following numbers are divisible by 4, by 8:

31795072



87. Using divisibility tests, determine which of the following numbers are divisible by 4, by 8:

1700



88. Using divisibility tests,determine which of the following numbers are divisible by 4,by 8: 2150

2150

following numbers are divisible by 6:

297144



90. Using divisibility tests determine which of

following numbers are divisible by 6:

1258

following numbers are divisible by 6:

4335



92. Using divisibility tests determine which of

following numbers are divisible by 6:

61233

following numbers are divisible by 6:

901352

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94. Using divisibility tests determine which of

following numbers are divisible by 6:

438750

following numbers are divisible by 6:

1790184



96. Using divisibility tests determine which of

following numbers are divisible by 6:

12583

following numbers are divisible by 6:

639210



98. Using divisibility tests determine which of

following numbers are divisible by 6:

17852

the following numbers are divisible by11:

5445

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100. Using divisibility tests, determine which of

the following numbers are divisible by11:

10824

the following numbers are divisible by11:

7135965



102. Using divisibility tests, determine which of

the following numbers are divisible by11:

70169308

the following numbers are divisible by11:

1000001



104. Using divisibility tests, determine which of

the following numbers are divisible by11:

901153

105. Write the smallest digit and the largest digit in the blank space of each of the following numbers so that the number isdivisible by 3:

__6724.

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106. Write the smallest digit and the largest digit in the blank space of each of the following numbers so that the number

isdivisible by 3:

4765_2.



107. Write digit in the blank space of each of the following numbers so that the number is divisible by 11 :

92 __ 389.

108. Write digit in the blank space of each of the following numbers so that the number is divisible by 11 :

8_9484.

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109. Find the common factors of :

20 and 28.

110. Find the common factors of :

15 and 25.



111. Find the common factors of :

35 and 50

112. Find the common factors of :

56 and 120.

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113. Find the common factors of :

4,8 and 12

114. Find the common factors of :

5,15 and 25.

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115. Find first three common multiples of:

6 and 8.



116. Find first three common multiples of:

12 and 18.

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117. Write all the numbers less than 100 which

are common multples of 3 and 4.

118. Which of the following numbers are co-

prime:

18 and 35.



119. Which of the following numbers are co-

prime:

15 and 37.

120. Which of the following numbers are co-

prime:

30 and 415

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121. Which of the following numbers are co-

prime:

17 and 68

122. Which of the following numbers are co-

prime:

216 and 215

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123. Which of the following numbers are co-

prime:

81 and 16.

124. A number is divisible by both 5 and 12.By which other number will that number be always divisible?



125. A number is divisible by 12.By what other

numbers will that number divisible?



126. Which of the following statemennts are true ?

If a number is divisible by 3, it must be divisible

by 9.

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127. Which of the following statemennts jare

true ?

If a number is divisible by 9,it must be divisible

by 3.





128. Which of the following statemennts are

true ?

A number is divisible by 9 and 10 both,then it

must be divisible by 90.

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129. Which of the following statemennts are

true ?

If two numbers are co-primes, at least one of

them must be prime.



130. Which of the following statemennts jare

true ?

All numbers which are divisible by 4 must also

be divisble by 8.

131. Which of the following statemennts are true ?

All numbers which are divisible by 8 must also

be divisible by 4.

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132. Which of the following statemennts jare

true?

If a number exactly divides two numbers separately, it must exactly divide their sum.



133. Which of the following statemennts jare true ?

If a number exactly divides the sum of two numbers, it must exactly divide the two numbers separately.

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134. Here are two different factor trees for 60.Write the missing numbers.



136. Write the greatest four digit number and

express it in terms of its prime factors.

137. Write the smallest five digit number and

exress it in the form of its prime factors.



138. Find all the prime factors of 1729 and arrange them in ascending order.Now state the relation, if nay, between two consecutive prime factors.

139. The product of three consecutive numbers

is always divisible by 6.Explain this statement

with the help of some examples.

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140. The sum of two consecutive odd number is divisible by 4.Verify statement with help of some examples.



142. In which of the following expressions, prime factorisation has been done:

56 = 1 imes 7 imes 2 imes 2 imes 2.






expressions,prime factorisation has been

done:

 $54 = 2 \times 3 \times 9.$

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145. Determine if 25110 is divisible by 45. [Hint:5

and 9 are co-oprime numbers.Test the

divisibility of the numbers by 5 and 9.].



146. 18 is divisible by both 2 and 3 .It is also divisible by 2 xx 3 = 6.Similarly, a number is divisible by both 4 and 6.Can we say tyhat number must also be divisible by 4 xx 6 = 24?If not,give one example to justify yur answer.

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147. I am the smallest number ,having four

different prime factors.Can you find me?

148. Renu purchases two bags of fertiliser of weights 75 kg. and 69.Find the mximum capacity of weight wich can measure the weight of the ffertiliser exact number of times.

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149. Three boys step off together from the same spot. Their steps measure 63 cm, 70 cm and 77 cm respectively. What is the minimum

distance each should cover so that all can over

the distance in complete steps ?



150. Thge length ,breadth and height of a room are 825 cm ,675 cm and 450 cm respectively.Find the longest tape which can measure the three dimensions of the room exactly.



151. Determine the smallest 3-digit number which is exactly divisible by 6 and 12.Watch Video Solution

152. Determine the largest 3-digit number

exactly divisible by 8,10 and 12.

153. The Traffic lights at three different road crossings change after every 48 seconds, 72 seconds and 108 seconds respectively, If they change simultaneously at 7 am at what time will they change simultaneously again ?

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154. Three tankers contain 403 litres,434 litres and 465 litres of diesel repectively.Find the maximum capacity of a container that can

measure the diesel of the three containers

exact number of times.



by 6, 15 and 18 leave remainder 5 in each case.

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156. Find the smallest four digit number which

is divisible by 18,24 and 32.



157. Find the L.C.M. of the following numbers in which one number is always a multiple of 3:9 and 4.Observe a common property in the obtainedL.C.M.s. Is L.C.M. the product of two numbers in each case ?Is L.C.M. always a multiple of 3 ?

158. Find the L.C.M. of the following numbers in which one number is always a multiple of 3: 12 and 5.

Observe a common property in the obtained

L.C.M.s. Is L.C.M. the product of two numbers in

each case ?Is L.C.M. always a multiple of 3 ?

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159. Find the L.C.M. of the following numbers

in which one number is always a multiple of 3:

6 and 5.

Observe a common property in the obtained

L.C.M.s. Is L.C.M. the product of two numbers in

each case ?Is L.C.M. always a multiple of 3 ?



160. Find the L.C.M. of the following numbers

in which one number is always a multiple of 3:

15 and 4.

Observe a common property in the obtained

L.C.M.s. Is L.C.M. the product of two numbers in

each case ?Is L.C.M. always a multiple of 3 ?



161. Find the L.C.M. of the following numbers in

which one number is the factor of the other :

5,20

What do you observe in the results obtained.

162. Find the L.C.M. of the following numbers in which one number is the factor of the other

6,18

:

What do you observe in the results obtained.

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163. Find the L.C.M. of the following numbers in which one number is the factor of the other

12,48

What do you observe in the results obtained.



164. Find the L.C.M. of the following numbers

in which one number is the factor of the other

9,45.

:

What do you observe in the results obtained.





1. Write all the factors of the following number

12

:

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2. Write all factors each of the following:

54

3. Write all the factors of the following number :

36



4. Write all factors each of the following:



5. Write all factors each of the following:





9. Write the first five multiples of :

15



10. Write the first five multiples of :



11. Which of the following have 27 as a factor?

6561



12. Which of the following have 27 as a factor?



13. Which of the following have 27 as a factor?

24356



14. List all prime numbers between:

21 and 90



15. List all prime numbers between:

110 and 140.

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16. Express each of the following numbers as a

sum of two odd primes :

36

17. Express each of the following numbers as a

sum of two odd primes :

59



18. Express each of the following numbers as a

sum of two odd primes :

82

19. Express each of the following numbers as a

sum of two odd primes :

106



20. Express each of the following numbers as a

sum of two odd primes :

92

21. Express each of the following as a sum of

three odd primes:

41

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22. Express each of the following as a sum of

three odd primes:

35

23. Express each of the following as a sum of

three odd primes:

55



24. Tell whether each of the following statements is true or false:

Every natural number is a multiple of itself.

25. Tell whether each of the following statements is true or false:

Sum of two odd numbers is an even number.

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26. Tell whether each of the following statements is true or false:

Every prime number is odd.

27. Tell whether each of the following statements is true or false:Every natural number is either prime or

composite.



28. Tell whether each of the following statements is true or false:

The product of two odd numbers is always an

odd number.

29. Tell whether each of the following statements is true or false:

31 is a factor of 20.

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30. Tell whether each of the following statements is true or false:

1 is a factor of every natural number.

31. Tell whether each of the following statements is true or false: both 3 and 9 are factors of 15.



32. Tell whether each of the following statements is true or false:

1 is a prime number.

33. Tell whether each of the following

statements is true or false:

2 is the only even prime number .

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34. Tell whether each of the following statements is true or false:

9 is the smallest odd composite number.

35. Tell whether each of the following

statements is true or false:

There are many prime triplets.

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36. Using divisibility tests ,determine which of

the follwing number are divisible by 2

?,br>236,450,791,565,207,394.

37. Which of the following number divisible by

3?

336



38. Which of the following number divisible by

3?



39. Which of the following number divisible by

3?

693



40. Which of the following number divisible by

3?

656

41. is the following number divisible by 3?

207



43. Which of the following number divisible by



45. Which of the following number divisible by




49. Which of the following number are divisibble by 11?



70169803

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51. Which fo the following statements are

true?



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52. Which fo the following statements are true?

No number is divided by 0.

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53. Which fo the following statements are

true?

15 is a factor of105 and 21 is also factor of

105.Then 36 and 6 are also factors of 105.



55. Find the common factors of :

4 and 8



58. Find the common factors of :

7,21 and 35.



59. Find first five common multiples of:

3 and 5.

60. Find first five common multiples of:

12 and 18.

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61. Find first five common multiples of:

3 and 9.



62. Which of the following are co-prime numbers?17 and 35.



63. Which of the following are co-prime numbers?

15 and 19.

64. Which of the following are co-prime numbers?

15 and 24.

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65. Which of the following are co-prime numbers?

12 and 30.

66. Which of the following statements are

true:

If a number isdivisible by 18,it is even and divisible by 9.



67. The difference of two distinct even

numbers is an even number.

68. If a number is divisible by two odd numbers, it is divisible by their product.

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69. If a number is a factor of each of the two given numbers it is also a factor of their product.

70. A number is divisible by 4 and 12.Is it necessary that it will be divisible by their product ?



71. 6 is a factor of 12066 and 49320.Is 6 a factor

of 49320 + 12066 and 49320 - 12066?



72. 11 divides 44 and 44 divides 396.Does 11
divide 396?
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73. Write the prime factorisation of the following number :

52

48



75. Write the prime factorisation of the following number :

84



36



77. Write the prime factorisation of the following number :

120

630

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79. Write the prime factorisation of the following number :

130

260



81. Which of the following are not prime factorisation:

86 = 2 x 43.

82. Which of the following are not prime factorisation:

 $112 = 2 \times 2 \times 2 \times 2 \times 7.$

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83. Which of the following are not prime factorisation:

 $90=3\times 30.$

84. Which of the following are not prime factorisation:

 $130 = 2 \times 5 \times 13.$

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85. Find H.C.F of :

24 and 36

86. Find H.C.F of :

15,25 and 30.

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87. Find H.C.F of :

8 and 12

88. Find H.C.F of :

12,16 and 28.

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89. Find H.C.F of the following numbers:

18,48



18,60



91. Find H.C.F of the following numbers:

30,42



27,63



93. Find H.C.F of the following numbers:

36,84



34,102

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95. Find H.C.F of the following numbers:

70,105,175



91,112,49

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97. Find H.C.F of the following numbers:

18,54,81



98. What is the H.C.F of two consecutive

numbers?

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99. What is the H.C.F of two consecutive

even numbers?

100. What is the H.C.F of two consecutive

odd numbers?

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101. H.C.F. of co-prime numbers 4 and 15 was found as follows:factorisation $:4 = 2 \times 2$ and $15 = 3 \times 5$.since there is no common prime factor,so H.C.F. of 4 anb 15 is 0.Is the answer correct?If not,what is the correct H.C.F ?



102. Find the H.C.F off :

9 and 12

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103. Find the H.C.F off :

18 and 54

104. Find the H.C.F off :

80 and 100

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105. Find the H.C.F off :

28 and 42

106. Find the H.C.F off :

15 and 75

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107. Find the H.C.F off :

72 and 126.



108. Find the H.C.F. of :

12, 18 and 30.

 $\mathsf{A.}\,4$

 $\mathsf{B.6}$

C. 8

D. 12

Answer: B

109. Find the H.C.F. of :

18,54 and 90.



110. Find the least number which is exactly

divisible by 12,16 and 64.

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111. Two big packets of books contain 84 and 105 books respectively. These books are to be

packed into small packets which will contain same number of books.How many maximum number of books can be packed in each small packet?

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112. The length,breadth and height of a room are 6m 80 cm,5m 10 cm and 3 m 40 cm respectively.Find the longest tape which can measure the demension of the room exatly?



113. Four boxes can hold 24 kg,36 kg,48 kg and 54 kg respectively. Find the least amount of weight which can put into exact number of boxes.

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114. Find the least number which when divided

by 12,15,18 and 36 leave10 as remainder.

115. The number of students in three sections A,B,C of class VI in a school are 32,34 and 38 .Find the minimum number of books equired for the class librery for equal distribution in sectio A,B and C.

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116. Which of the following is a prime number

?
B. 51

C. 39

D. 26

Answer:

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117. Which of the following is a prime number ?

A. 32

B. 30

C. 31

D. 33

Answer:



118. Which of the followinng is a composite number?

A. 12

B. 19

C. 29

D. 31

Answer:



119. Which of the following is an even number?

A. 13

B. 15

C. 16

D. 19

Answer:

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120. Which of the following is an odd number?

A. 12

B. 13

C. 14





121. Which of the following is an even prime number?

A. 2

B. 3

C. 4

Answer:



122. What is the greatest prime number between 1 and 10?

A. 2

B. 3

C. 5





123. Which of the following is neither prime nor composite number?

A. 1

 $\mathsf{B.}\,2$

C. 3





а

A. Prime number

B. Comopsite number

C. Even number

D. Odd number.

Answer:



125. Fill in the blanks in the following:

A number which has only two factors is called

a

A. Even number

B. Prime number

C. Odd number

D. Composite number.



