

MATHS

BOOKS - BETOPPERS

NUMBER SYSTEM-II

Formative Worksheet

1. Find a perfect number between 25 and 30.



2. Which of the numbers are divisible by 3?

(A) 932105 (B) 4980204 (C) 262242



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3. Which of the following are divisible by 4?

(A) 75020 (B) 987542



4. Which of the numbers are divisible by 5?

(A) 460765 (B) 50502 (C) 13790



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5. Which of the following numbers are divisible by 6?

(A) 24056 (B) 98274



6. Which of the following numbers are divisible by 8?

(A) 987048 (B) 5719842



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7. Which of the following numbers are divisible by 9?

(A) 634680 (B) 4204561



8. Which of the following numbers are divisible by 10?

(A) 500505 (B) 8179320



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9. Which of the following numbers are divisible by 11?

(A) 2221582 (B) 2455439



10. Is 180 a common multiple of 3, 4 and 5? **Watch Video Solution**

11. Identify the common factors of 6, 8 and 12.



12. Find the common factors of 10 and 15.



13. Express the following numbers as the product of primes.

90



14. Express the following numbers as the product of primes.

675



15. Express the following numbers as the product of primes.

1089



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16. Find the H.C.F. of 72, 192 and 324.



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17. What is the HCF of 6 and 12?



18. Find the GCD of 36 and 48.



19. Find the L.C.M. of 6 and 9 by division method.



20. Find the L.C.M. of 6 and 9 by prime factorisation method.



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21. If the product of two numbers is 336 and their H.C.F. is 4, find their L.C.M.



22. Find the LCM of 18, 24, 60 and 120 by division method.



23. Find the GCD of 136 and 120.



24. Find the GCD of the 459, 357, 306.



25.
$$\frac{6}{11} = \frac{a}{33} = \frac{36}{b}$$

Determine the values of a and b.



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26. Are the following fractions equivalent?

$$\frac{1}{5}, \frac{5}{25}$$



27. Are the following fractions equivalent?

$$\frac{3}{8}, \frac{10}{16}$$



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28. Which fraction is smaller? $\frac{3}{5}$ or $\frac{4}{7}$



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29. Arrange $\frac{1}{2}$, $\frac{8}{9}$, $\frac{5}{6}$ in ascending order.



30. From these fractions:

$$\frac{3}{7}, \frac{5}{9}, \frac{11}{2}, \frac{9}{16}, \frac{7}{3}, \frac{5}{5}, \frac{101}{10}, \frac{22}{23}, \frac{4}{3}, \frac{9}{4}$$

Select the

proper fractions



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31. From these fractions:

$$\frac{3}{7}, \frac{5}{9}, \frac{11}{2}, \frac{9}{16}, \frac{7}{3}, \frac{5}{5}, \frac{101}{10}, \frac{22}{23}, \frac{4}{3}, \frac{9}{4}$$

Select the

improper fractions



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32. Convert the following improper fractions into mixed fractions.

 $\frac{19}{5}$



33. Convert the following improper fractions into mixed fractions.

$$\frac{30}{6}$$



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34. Calculate $\frac{15}{25}+\frac{5}{25}$



35. Calculate the following.

 $48.38\times1,000$



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36. Find the product of the following.

 9×0.1



37. Find the product of the following.

 7.5×0.01



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38. Find the product of the following.

 89.4×0.001



39. A table weighs 5.67 kg. What is the total mass of 6 identical tables?



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40. Evaluate 75.38 ÷ 5.



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41. Divide the following.

 $79.88 \div 100$

42. Divide the following.

 $22.128 \div 0.001$



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43. Divide the following.

 $\frac{5.6}{0.008}$



44. Divide the following.

$$0.18 \div \frac{6}{7}$$



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45. Write down the square of each of the following numbers in the form of the number multiplied by itself.

9



46. Write down the square of each of the following numbers in the form of the number multiplied by itself.

-14



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47. Write down the square of each of the following numbers in the form of the number multiplied by itself.



48. Write down the square of each of the following numbers in the form of the number multiplied by itself.

$$-\frac{\mathbf{5}}{8}$$



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49. Write down the square of each of the following numbers in the form of the number multiplied by itself.

0.5

50. Write down the square of each of the following numbers in the form of the number multiplied by itself.

-2.7



51. Write following numbers using the square notation.

$$(-13) \times (-13)$$



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52. Write following numbers using the square notation.

$$\left(-\frac{2}{5}\right) \times \left(-\frac{2}{5}\right)$$



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53. Write following numbers using the square notation.

 3.8×3.8



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54. Write each of the following numbers in its expanded form.

 $(15)^2$



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55. Write each of the following numbers in its expanded form.

$$\left(-rac{2}{3}
ight)^2$$



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56. Write each of the following numbers in its expanded form.

$$(-7.4)^2$$



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57. Calculate the value of the following without using a calculator.

 $(15)^2$



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58. Calculate the value of the following without using a calculator.

$$(-60)^2$$



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59. Calculate the value of the following without using a calculator.

$$\left(\frac{3}{8}\right)$$



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60. Determine whether the following are perfect squares.

484



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61. Using the square root $(\sqrt{})$, write the squre root of the following squares.

 $3 \times 3 = 9$



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62. Using the square root $(\sqrt{})$, write the squre root of the following squares.

$$\left(\frac{11}{12}\right)^2 = \frac{121}{144}$$



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63. Calculate the value of

$$\sqrt{49}$$



64. Calculate the value of





65. Calculate the value of

$$\sqrt{8^2}$$



66. Calculate the values of the following.

$$\sqrt{\frac{144}{196}}$$



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67. Calculate the values of the following.

$$\sqrt{3\frac{1}{16}}$$



68. Calculate the values of the following.

$$\sqrt{\frac{20}{125}}$$



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Conceptive Worksheet

1. Work out the following sums and write your conclusions below:

37 - 13

Odd number - Odd number = ____



2. Work out the following sums and write your conclusions below

28 - 17

Even number - Odd number = _____



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3. Work out the following sums and write your conclusions below:

43 - 14

Odd number - Even number = _____



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4. Work out the following sums and write your conclusions below

56 - 38

Even number - Even number = _____



5. Find the following products and write your conclusions below:

 37×7

Product of two odd numbers = _____



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6. Find the following products and write your conclusions below:

 28×9

Product of an odd number and an even number = _____



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7. Find the following products and write your conclusions below:

 68×6

Product of two even number = _____



8. Find the difference between the smallest and largest prime numbers between 6 and 18.

A. 4

B. 6

C. 8

D. 10

Answer:



9. The sum of all the prime factors of m is 9.

Find the number m.

A. 15

B. 20

C. 28

D. 63

Answer:



10. Which of the following is even -2, 2, 3?



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11. the prime factors of 96 are?



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12. Is 156 is a common multiple of 3, 13?



13. The sum of all the prime factors of a number is 15, then the number is?



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14. Give an example of twin primes?



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15. Is 4 a common factor of 36, 44 and 100?



16. Find the factor of 20



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17. Determine the HCF of 14 and 20.



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18. Find the H.C.F. of 16 and 24.



19. Find the L.C.M. of 6 and 9.



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20. Find the GCD of 30, 75 and 135.



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21. Graph the fraction on a number line.

 $\frac{1}{4}$

22. Graph the fraction on a number line.

 $\frac{5}{6}$



23. Graph the fraction on a number line.

 $\frac{9}{8}$



24. Graph the fraction on a number line.



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25. Write the prime factorization of each number.

12



26. Write the prime factorization of the following number and hence find their square roots. 7744 (ii) 9604 (iii) 5929 (iv) 7056



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27. Write the prime factorization of each number.

80



 $\frac{3}{12}$



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29. Write each fraction in lowest terms.

 $\frac{5}{20}$



$$\frac{18}{4}$$



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31. Write each fraction in lowest terms.

 $\frac{25}{55}$



 $\frac{64}{80}$



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33. Write each fraction in lowest terms.

88

132





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35. Write each fraction in lowest terms.

$$\frac{225}{375}$$



$$\frac{108}{120}$$



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37. Divide and write the product in lowest terms.

$$\frac{7}{8} \cdot \frac{2}{3}$$



$$\frac{2}{3} \div \frac{5}{6}$$



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39. write the product in lowest terms.

$$\frac{6}{15} \div \frac{12}{5}$$



$$\frac{10}{11} \div \frac{4}{5}$$



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41. write the product in lowest terms.

$$rac{3}{8} imesrac{5}{12}$$



$$\frac{25}{36}\times\frac{18}{10}\times\frac{30}{50}$$



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43. write the product in lowest terms.

$$\frac{2}{3}\times\frac{6}{4}\times\frac{16}{15}$$



$$\frac{64}{25} imes \frac{50}{8}$$



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45. write the product in lowest terms.

$$2\frac{4}{5} imes 2\frac{1}{7}$$



$$3rac{13}{20} imes 6rac{5}{10} imes 5$$



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47. Simplify:

$$\frac{3}{7} + \frac{2}{7}$$



$$-\,\frac{1}{2}\,+\,\frac{1}{2}$$



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49. Simplify:

$$\frac{10}{11} - \frac{4}{11}$$



$$\frac{1}{8} - \frac{7}{8}$$



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51. Simplify:

$$\frac{3}{7}+\frac{4}{6}$$



$$\frac{1}{5} + \frac{7}{10}$$



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53. Simplify:

$$\frac{4}{5} + \frac{3}{10} + \frac{2}{7}$$



$$4\frac{1}{6}+3\frac{5}{12}$$



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55. Simplify:

$$18\frac{1}{2} + 8\frac{1}{3} + 7\frac{1}{7}$$



$$rac{5}{8}-rac{2}{9}$$



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57. Simplify:

$$\frac{5}{8}-\frac{4}{7}$$



$$\frac{7}{10} - \frac{1}{5}$$



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59. Simplify:

$$13\frac{4}{5} - 2\frac{1}{3}$$



$$4\frac{5}{6}-2\frac{2}{3}$$



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61. Simplify:

$$\frac{11}{10} + \frac{5}{7} - \frac{2}{5}$$



$$\frac{7}{8} - \frac{1}{3} - \frac{1}{4}$$



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63. Simplify:

$$8\frac{1}{9} + 9\frac{1}{8} - 7\frac{1}{6}$$





$$17\frac{1}{5} - 8\frac{1}{2} - 1\frac{1}{4}$$



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65. Simplify:

$$11\frac{1}{10} - 7\frac{1}{20} + 6\frac{1}{10}$$



66. Find LCM of the fractions below:

$$\frac{1}{4}, \frac{5}{6}$$



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67. Find LCM of the fractions below:

$$\frac{7}{12}$$
, $\frac{7}{15}$



68. Write 5 equivalent fractions for the given

fractions:

 $\frac{5}{7}$



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69. Write 5 equivalent fractions for the given fractions:

 $\frac{1}{2}$



$$\frac{3}{5}$$
 of 16



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71. Evaluate:

$$\frac{7}{13} \times 26$$



$$rac{3}{7} imesrac{4}{9}$$



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73. Evaluate:

$$\frac{3}{5}$$
 of $\frac{11}{17}$



$$\frac{7}{20}$$
 times of $\frac{5}{14}$



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75. Evaluate:

 $5 \div 25$



$$\frac{4}{7} \div 16$$



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77. Evaluate:

$$4\div\frac{1}{8}$$



$$\frac{34}{7} \div !$$



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79. Evaluate:

$$6\frac{5}{12} \div 1\frac{7}{36}$$



$$\frac{7}{11} = \frac{21}{11}$$



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81. Fill in the blanks:

$$\frac{1}{2}=\frac{1}{20}$$



$$\frac{15}{1} = \frac{45}{51}$$



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83. Fill in the blanks:

$$\frac{32}{25} = \frac{32}{100}$$



$$\frac{36}{60} = \frac{}{5}$$



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85. Fill in the blanks:

$$\frac{1}{11} = \frac{6}{6} = \frac{18}{66} = \frac{54}{132}$$



$$\frac{1}{14} = \frac{18}{16} = \frac{36}{56} = \frac{1}{168}$$

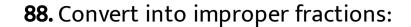


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87. Convert into improper fractions:

$$6\frac{12}{30}$$





$$3\frac{7}{9}$$



89. Convert into improper fractions:

$$11\frac{1}{11}$$





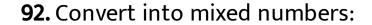
$$21\frac{1}{20}$$



91. Convert into improper fractions:

 $8\frac{1}{3}$





$$\frac{310}{25}$$



93. Convert into mixed numbers:

 $\frac{37}{11}$





56 19



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95. Convert into mixed numbers:

25



96. Convert into mixed numbers:

$$\frac{235}{10}$$



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97. Arrange in ascending order:

$$\frac{1}{6}, \frac{1}{15}, \frac{2}{5}, \frac{3}{4}$$



98. Arrange in ascending order:

$$\frac{2}{3}, \frac{1}{6}, \frac{5}{12}, \frac{3}{4}$$



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99. Arrange in ascending order:

$$\frac{11}{28}, \frac{4}{7}, \frac{1}{2}, \frac{23}{56}$$



100. Arrange in ascending order:

$$\frac{3}{5}, \frac{4}{7}, \frac{1}{3}, \frac{5}{12}$$



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101. Arrange in ascending order:

$$\frac{1}{6}, \frac{4}{5}, \frac{5}{6}, \frac{1}{2}$$



102. Arrange in descending order:

$$\frac{5}{16}$$
, $\frac{3}{8}$, $\frac{1}{4}$, $\frac{1}{8}$



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103. Arrange in descending order:

$$\frac{1}{4}, \frac{2}{5}, \frac{1}{3}, \frac{1}{9}$$



104. Arrange in descending order:

$$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}$$



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105. Arrange in descending order:

$$\frac{23}{25}$$
, $\frac{7}{10}$, $\frac{47}{50}$, $\frac{3}{5}$



106. Write each of the following fractions as a decimals.

 $\frac{7}{100}$



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107. Write each of the following fractions as a decimals.

 $\frac{23}{1000}$



108. Write each of the following fractions as a decimals.

 $\frac{3}{4}$



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109. Write each of the following decimals as a fraction.

0.6



110. Write each of the following decimals as a fraction.

0.13



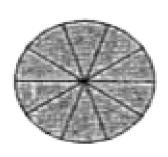
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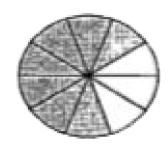
111. Write each of the following decimals as a fraction.

0.425



112. State the decimal represented by the shaded parts in the following figures.







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113. Change the following fractions to decimals.

 $\overline{5}$



114. Change the following fractions to decimals.

82
100



115. Change the following fractions to decimals.

$$1\frac{2}{5}$$



116. Change the following fractions to decimals.

$$9\frac{1}{4}$$



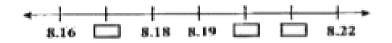
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117. Change the following fractions to decimals.

$$14\frac{1}{8}$$



118. Complete the given number line





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119. Round off each of the following decimals to the number of decimal places given in brackets.

2.1425 (3 d.p.)



120. Round off each of the following decimals to the number of decimal places given in brackets.

0.01721 (2 d.p.)



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121. Round off each of the following decimals to the number of decimal places given in brackets.

52.167 (1 d.p.)



122. Round off each of the following decimals to the number of decimal places given in brackets.

1.0478 (2 d.p.)



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123. Arrange the following decimals in ascending order.

0.42, 0.5, 0.39, 0.22



124. Round off each of the following decimals correct to the number of decimal places given in the brackets.

0.4192 (2 d.p.)



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125. Round off each of the following decimals correct to the number of decimal places given

in the brackets.

3.18 (1 d.p.)



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126. Round off each of the following decimals correct to the number of decimal places given in the brackets.

9.186 (2 d.p.)



127. Round off each of the following decimals correct to the number of decimal places given in the brackets.

6.1995 (3 d.p.)



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128. Round off each of the following decimals correct to the number of decimal places given in the brackets.

0.1495 (3 d.p.)



129. Round off each of the following decimals correct to the number of decimal places given in the brackets.

14.178 (2 d.p.)



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130. Round off each of the following decimals correct to the number of decimal places given

in the brackets.

4.096 (1 d.p.)



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131. Round off each of the following decimals correct to the number of decimal places given in the brackets.

15.972 (1 d.p.)



132. Write down the square of each of the following:

12



133. Write down the square of each of the following:

-5



134. Write down the square of each of the following:

$$-\,rac{1}{4}$$



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135. Write down the square of each of the following:

$$-2\frac{2}{3}$$



136. Write down the square of each of the following:

3.2



137. Find the value of each of the following:

$$\sqrt{36}$$



138. Find the value of each of the following:

$$\sqrt{64}$$



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139. Find the value of each of the following:

$$\sqrt{144}$$



140. Find the value of each of the following:

$$\sqrt{169}$$



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141. Find the value of each of the following:

$$\sqrt{10.24}$$



142. Find the squares of the following by actual multiplication:

0.3



143. Find the squares of the following by actual multiplication:

0.8



144. Find the squares of the following by actual multiplication:

1.4



145. Find the squares of the following by actual multiplication:

2.1



146. Find the squares of the following by actual multiplication:

0.05



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147. Find the squares of the following by actual multiplication:

1

10



148. Find the squares of the following by actual multiplication:

 $\frac{5}{10}$



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149. Find the squares of the following by actual multiplication:

 $\frac{16}{10}$



150. Find two numbers between which the square roots of the following numbers lie:



6

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151. Find two numbers between which the square roots of the following numbers lie:

12



152. Find two numbers between which the square roots of the following numbers lie:



23

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153. Find two numbers between which the square roots of the following numbers lie:



68

154. Find two numbers between which the square roots of the following numbers lie:



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155. Find two numbers between which the square roots of the following numbers lie:



156. Find two numbers between which the square roots of the following numbers lie:



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157. Find two numbers between which the square roots of the following numbers lie:



158. Find two numbers between which the square roots of the following numbers lie: 862



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159. Find two numbers between which the square roots of the following numbers lie: 1000



160. Find two numbers between which the square roots of the following numbers lie:



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161. Find two numbers between which the square roots of the following numbers lie:



162. Find two numbers between which the square roots of the following numbers lie:



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163. Find two numbers between which the square roots of the following numbers lie:

315



164. Find two numbers between which the square roots of the following numbers lie: 535



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165. Find two numbers between which the square roots of the following numbers lie: 340



64



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167. Find the square root of the following numbers by factor method.

100



144



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169. Find the square root of the following numbers by factor method.

289





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171. Find the square root of 196.



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172. Find the square root of the following numbers by factor method.



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173. Find the square root of 1225.



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174. Find the square root of the following numbers by factor method.

1521



4624



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176. Find the square root of the following numbers by factor method.

7056





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178. Find the square root of the following numbers by factor method.

9216



17424



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180. Find the square root of the following numbers by factor method.

23716



10404



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182. Find the square root of the following numbers by factor method.

40401





10,000

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184. Find the square root of the following numbers by factor method.

38025



20736



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186. Simplify the following by factor method:

$$\sqrt{4} + \sqrt{9}$$



$$\sqrt{100} + \sqrt{81}$$



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188. Simplify the following by factor method:

$$\sqrt{36} + \sqrt{4}$$



$$\sqrt{9} + \sqrt{16}$$



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190. Simplify the following by factor method:

$$\sqrt{441} + \sqrt{121}$$



$$\sqrt{2500} + \sqrt{441}$$



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192. Simplify the following by factor method:

$$\sqrt{529} + \sqrt{64}$$



$$\sqrt{49} - \sqrt{4}$$



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194. Simplify the following by factor method:

$$\sqrt{64} - \sqrt{9}$$



$$\sqrt{100} - \sqrt{81}$$



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196. Simplify the following by factor method:

$$\sqrt{729} - \sqrt{100}$$



$$\sqrt{961} - \sqrt{484}$$



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198. Simplify the following by factor method:

$$\sqrt{4} \times \sqrt{49}$$



$$\sqrt{100} imes \sqrt{169}$$



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200. Simplify the following by factor method:

$$\sqrt{324} imes\sqrt{144}$$



$$\sqrt{256} imes \sqrt{4}$$



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202. Simplify the following by factor method:

$$\sqrt{196} \times \sqrt{9}$$



203. Write the number of digits in the square root of the following numbers : (no calculation needed)



324

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204. Write the number of digits in the square root of the following numbers : (no calculation needed)



676

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205. Write the number of digits in the square root of the following numbers : (no calculation needed)



1369

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206. Write the number of digits in the square root of the following numbers : (no calculation

needed)

21904



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207. Write the number of digits in the square root of the following numbers : (no calculation needed)

4937284



208. Write the number of digits in the square root of the following numbers : (no calculation needed)



9803161

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209. Identify which of the following are perfect squares.

10, 100, 15, 30, 81



Summative Worksheet

1. Find the LCM by prime factorisation:

90, 126, 135



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2. Find the LCM by prime factorisation:

15, 18, 36, 45



3. Find the LCM by prime factorisation:

96, 588



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4. Find the sum of all the common factors of 10 and 25.



5. Find the highest common factor of 35 and 56.



6. List all the factors of 27 and 52.



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7. There are 24 hours in a day. What fraction of a day does 11 hours represent?



8. In a family with 11 children, there are 4 boys and 7 girls. What fraction of the children are girls?



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9. A work shift for an employee at Mc Donald's consists of 8 hours. What fraction of the

employee's work shift is represented by 6 hours?



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10. There are 35 students in a biology class. If 10 students made grade A in the first test, what fraction of the students made grade A?



11. Four out of 10 marbles are red. What fraction of marbles are not red?



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12. There are 100 centimeters in 1 meter. What fraction of a meter is 20 centimeters?



13.
$$\left(\frac{2}{7} \div \frac{7}{2}\right) imes \frac{3}{4}$$

14.
$$rac{1}{2} imes\left(rac{5}{6}\divrac{1}{12}
ight)$$



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15. Express $\frac{18}{100000}$ as a decimal.

A. 1.8E-6

B. 0.00018

C. 0.018

D. 0.18

Answer:



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16. Express 0.07 as a fraction.

- $\mathsf{A.}\;\frac{7}{10}$
- B. $\frac{1}{10}$
- c. $\frac{7}{100}$
- D. $\frac{1}{700}$

Answer:



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17. 0.0999 as a fraction is

A.
$$\frac{999}{10}$$

B.
$$\frac{999}{100}$$

C.
$$\frac{999}{1,000}$$

D.
$$\frac{999}{10,000}$$

Answer:

18. The place value of the digit 4 in 0.05141 is

A. tenths

B. hundredths

C. thousandths

D. ten thousandths

Answer:



19. Which of the following is the smallest decimal?

A. 0.018

B. 0.07

C. 0.074

D. 0.0054

Answer:



20. Which of the following is the greatest decimal?

- A. 0.0019
- B. 0.009
- C. 0.019
- D. 0.0091

Answer:



21. Which of the following is the nearest to

12.531?

A. 12.54

B. 12.53

C. 12.52

D. 12.50

Answer:



22. 1.84359 rounded off to 3 decimal places becomes

- A. 1.843
- B. 1.844
- C. 1.845
- D. 1.846

Answer:



23. The diagram below shows a list of decimals.

I.	53.760	II. 4.016
III.	2.63	IV. 0.06

Which are the highest and lowest decimals?

- A. I and II
- B. II and III
- C. III and IV
- D. I and IV

Answer:



24.
$$(-0.3)^2 =$$

A. -0.09

B. -0.9

C. 0.09

D. 0.9

Answer:



25.
$$\left(-\frac{4}{9}\right)^2 =$$

$$\mathsf{A.} - \frac{16}{81}$$

$$\mathsf{B.}-\frac{4}{9}$$

c.
$$\frac{16}{81}$$

D.
$$\frac{4}{9}$$

Answer:



26.
$$\left(5\frac{1}{2}\right)^2 =$$

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

B.
$$\frac{11}{4}$$

c.
$$\frac{25}{4}$$

D.
$$\frac{121}{4}$$

Answer:



27. The value of $(3.42)^2$ lies between

- A. 6 and 7
- B. 9 and 16
- C. 26 and 36
- D. 40 and 44

Answer:



28. $\sqrt{480}$ is

A. greater than 20

B. less than 20

C. equal to 20

D. equal to 40

Answer:



29. Calculate the value of $\sqrt{6\frac{1}{4}}$.

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

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

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

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

Answer:



30. Calculate the value of $\sqrt{1-rac{16}{25}}$.

- $\mathsf{A.}\;\frac{9}{5}$
- $\mathsf{B.}\;\frac{3}{5}$
- $\mathsf{C.}\;\frac{3}{25}$
- $\mathsf{D.}\;\frac{1}{25}$

Answer:



1. What is the lowest common multiple of 2, 5 and 11?



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2. Determine the lowest common multiple of 6 and 9.



3. List all the factors of 81.



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4. List all the prime factors of 72.



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5. Determine the common factors of 12 and 27.



6. Find the lowest common multiple of 3, 6 and





7. Find the lowest common multiple of 6, 11 and 18.

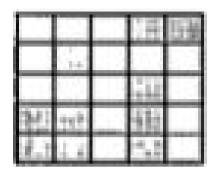


8. Find the lowest common multiple of 8, 12 and 20.



9. What is the H.C.F of two consecutive numbers?





10.

Determine the fraction of the shaded parts in the figure shown.

$$\mathsf{A.}\;\frac{2}{5}$$

B.
$$\frac{11}{25}$$

C.
$$\frac{12}{25}$$

D.
$$\frac{12}{25}$$

Answer: D



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11.
$$\frac{1}{3} + \frac{3}{4} + \frac{5}{6} =$$

$$\mathsf{A.}\ 1\frac{5}{12}$$

B.
$$1\frac{7}{12}$$

C.
$$1\frac{9}{12}$$

D.
$$1\frac{11}{12}$$

Answer:

12. Asri completed $\frac{1}{5}$ of his assessment on Monday and $\frac{3}{4}$ of it on Tuesday. How much of his assessment did Asri complete in the two days?

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

$$\mathsf{C.}\,\frac{3}{20}$$

D.
$$\frac{19}{20}$$

Answer:



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13.
$$3\frac{1}{5} imes \frac{5}{8} =$$

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

 $\mathsf{B.}\;\frac{1}{5}$

 $\mathsf{C.}\,\frac{1}{2}$

D. 2

Answer:

14. Anu had Rs. 150. She gave $\frac{3}{5}$ of this to Rajani. Rajani gave $\frac{1}{2}$ of the money she received to Narmada. How much did Narmada receive if she also received $\frac{1}{2}$ of the money that Anu had left?

A. Rs. 90

B. Rs. 80

C. Rs. 75

D. Rs. 45

Answer:



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15.
$$30 - \left(\frac{2}{7} \div \frac{2}{21}\right) =$$

A. 312

B. $29\frac{143}{147}$

C. 28

D. 27

Answer:



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16.
$$\left(\frac{3}{4} + \frac{5}{8}\right) \div \frac{1}{16} =$$

A. 22

B. 20

 $\mathsf{C.}\;\frac{1}{20}$

D. $\frac{1}{22}$

Answer:



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17.
$$7\frac{2}{9} \div \left(\frac{1}{3} + \frac{5}{9}\right) =$$

A.
$$22\frac{2}{9}$$

$$\mathsf{B.}\,9\frac{34}{81}$$

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

D.
$$5\frac{1}{8}$$

Answer:



18.
$$\left(\frac{1}{5} \div \frac{1}{10}\right) \times \frac{1}{18} =$$

A. 9

B. 7

 $\mathsf{C.}\ \frac{1}{5}$

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

Answer:



19. Between which two whole numbers on the number line is the number 0.5 lies?

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

Answer:



20. Between which two whole numbers on the number line is the number 3.3 lies?

- A. 0 and 1
- B. 1 and 2
- C. 2 and 3
- D. 3 and 4

Answer:



21. 0.02 =

A.
$$\frac{1}{25}$$

B.
$$\frac{1}{50}$$

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

D.
$$\frac{1}{10}$$

Answer:



22. 1.44 =

A. $\frac{36}{25}$

 $\mathsf{B.}\;\frac{72}{25}$

 $\mathsf{C.}\ \frac{36}{50}$

D. $\frac{72}{100}$

Answer:



23.
$$111 + \frac{1}{100} =$$

A. 111.01

B. 111.1

C. 111.001

D. 111.0001

Answer:



24.
$$\frac{2}{10} + \frac{3}{100} + \frac{4}{1000} =$$

A. 0.234

B. 2.34

C. 23.4

D. 234

Answer:



25.
$$12 + \frac{2}{10} + \frac{4}{1000} =$$

A. 12.204

B. 12.024

C. 12.402

D. 12.24

Answer:



26. 0.05 =

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

B.
$$\frac{1}{20}$$

C.
$$\frac{1}{200}$$

D.
$$\frac{1}{2000}$$

Answer:



27. 55 m =

A. 0.055 km

B. 0.55 km

C. 0.0055 km

D. 5.5 km

Answer:



28. 5g =

A. 0.005 kg

B. 0.05 kg

C. 0.5 kg

D. none of these

Answer:



29. 5 kg 5 g =

A. 5.005 kg

B. 5.05 kg

C. 5.5 kg

D. 0.55 kg

Answer:



30. 12 kg 20 g =

A. 12.02 kg

B. 12.2 kg

C. 12.002 kg

D. 12.002 kg

Answer:



31. The length of a squar is 2.54 cm. Find the area of the square correct to two decimal places.



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

 $\left(5.01\right)^2$ lies between 16 and 25



33. State whether each of the following statements is true or false.

 $\left(26.1\right)^2$ lies between 400 and 900



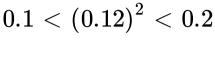
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34. State whether each of the following statements is true or false.

$$144 < (12.1)^2 < 169$$



35. State whether each of the following statements is true or false.





36. Find the value of each of the following:

$$\sqrt{2} imes \sqrt{3}$$



37. Find the value of each of the following:

$$\sqrt{rac{3}{4}} imes\sqrt{rac{1}{4}}$$



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38. Find the value of each of the following:

$$\sqrt{1.4} imes \sqrt{2}$$



39. Find the value of each of the following:

$$\sqrt{1rac{2}{3}} imes\sqrt{2rac{1}{5}}$$



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40. Find the square root of each of the following numbers, without the use of calculator.

16



41. Find the square root of each of the following numbers, without the use of calculator.





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42. Find the square root of each of the following numbers, without the use of calculator.

$$\frac{1}{4}$$



43. Find the square root of each of the following numbers, without the use of calculator.

 $\frac{8}{50}$



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44. Find the square root of each of the following numbers, without the use of

calculator.



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45. Find the value of each of the following, without the use of calculator.

$$\sqrt{121}$$



46. Find the value of each of the following, without the use of calculator.

$$\sqrt{1\frac{7}{9}}$$



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47. Find the value of each of the following, without the use of calculator.

$$\sqrt{\frac{243}{300}}$$



lit Jee Worksheet

1. The highet common factor of 14 and 49 is

A. 2

B. 7

C. 14

D. 21

Answer:



2. Which of the following numbers are prime factors of 150?

A. 2, 3 and 5

B. 5 and 6

C. 5 and 10

D. 2, 3 and 15

Answer:



3. Determine all prime factors of 138.

A. 2, 3 and 23

B. 1, 2 and 23

C. 2, 3 and 46

D. 6 and 23

Answer:



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4. The prime factors of 100 are

- A. 1, 2 and 5
- B. 2 and 5
- C. 4 and 5
- D. 5 and 10



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5. For the sequence 2, 6, 10, x, 18, the value of x

is

- A. 12
- B. 14
- C. 15
- D. 16



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6. Find the lowest commest multiple of 6, 14 and 16.

- **A.** 2
- B. 14
- C. 16
- D. 336



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7. 7 and 9 are factors of x. What is a possible value of x?

- A. 63
- B. 70
- C. 81
- D. 84



- 8. The commonn multiples of 20 and 30 are
 - A. 40, 60

- B. 50, 60
- C. 60, 120
- D. 100, 120



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9. The sum of all the prime factors of t is 5. A possible value of t is

A. 36

- B. 30
- C. 26
- D. 20



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10. 19, x, 29, 31, y, 41, 43 are a list of prime numbers in ascending order. The value of x + y is

- A. 60
- B. 37
- C. 23
- D. 21



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11. Which of the following statements is true?

A. 1 is a prime number

- B.1 is neither a prime nor a composite number
- C. A prime number will have the number itself as one of its factors
- D. A composite number number will have only two factors



12. Which of the following is/are a factor of 1113?

A. 3

B. 6

C. 53

D. 11

Answer:



13. The prime number between 40 and 50:
A. 49
B. 47
C. 41
D. 43
Answer:
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14. The common multiples of 7 and 13:

- A. 91
- B. 182
- C. 273
- D. 364



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15. Which of the following is the number which can divide 60, 90, 120?

- A. 30
- B. 60
- C. 90
- D. 15



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16. Which is true?

A. (HCF $\, imes\,$ LCM) of a and b = a imes b

B. (HCF + LCM) of a and b = a + b

C. (HCF - LCM) of a and b = a - b

D. $HCF \div LCM$ of a and b = $a \div b$

Answer:



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17. The number of possible sets of two prime numbers such that their sum or difference will never yield a composite number is _____.



18.
$$3\frac{2}{5} + 1\frac{5}{6} - \frac{1}{5} =$$

A.
$$5\frac{3}{19}$$

B.
$$5\frac{5}{19}$$

c.
$$5\frac{1}{30}$$

D.
$$6\frac{1}{30}$$



19.
$$\frac{5}{18} \div \left(\frac{2}{3} - \frac{1}{6}\right) =$$

- A. $\frac{4}{9}$
- B. $\frac{5}{9}$
- $\mathsf{C.}\,\frac{7}{9}$
- D. $\frac{8}{9}$



20.
$$\left(7\frac{1}{2} - 3\frac{2}{3}\right) imes \frac{12}{69} =$$

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

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

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

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



21. The fraction equal to $\frac{3}{7}$ is :

$$\mathsf{A.}\ \frac{3}{14}$$

$$\mathsf{B.}\;\frac{6}{14}$$

c.
$$\frac{9}{21}$$

D.
$$\frac{12}{28}$$

Answer:



22.
$$\frac{1}{6} < \frac{2}{3}$$
 because :

A.
$$(1 imes 3) < (2 imes 6)$$

B. We cannot say without number line

C.
$$\frac{2}{3} = \frac{4}{6}$$

D. numerator 1 < numerator 2

Answer:



23. Which of the following statements is false?

A. 5 hours is $\frac{1}{6}$ of a day

B. 4 days is $\frac{4}{7}$ of a week

C. 1 month is $\frac{1}{12}$ of a year

D. 6 months is $\frac{1}{2}$ of a year

Answer:



24. $3\frac{2}{5}$ is equal to:

A.
$$3 imesrac{2}{5}$$

B.
$$3 - \frac{2}{5}$$

$$\mathsf{C.}\,3+\frac{2}{5}$$

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

Answer:



25.
$$\frac{1}{3} + \frac{2}{3} =$$



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26.
$$\frac{9}{3} - \frac{6}{3} =$$



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27.
$$\frac{3}{4} \times \frac{8}{3} =$$



28. $\frac{5}{4} \div \frac{1}{4} =$



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29.
$$\frac{22}{10} =$$

A. 0.22

B. 2.2

C. 2.02

D. 2.002



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30.
$$1 + \frac{1}{10} =$$

A. 0.11

B. 1.1

C. 1.01

D. 1.001

Answer:



31.
$$\frac{5}{2}=$$

A. 0.5

B. 0.2

C. 2.5

D. 0.25

Answer:



32.
$$\frac{3}{5} =$$

- A. 0.6
- B. 0.006
- C. 0.0006
- D. 0.06



33.
$$2\frac{1}{10} =$$

A. 2.1

B. 2.01

C. 2.001

D. 2.0002

Answer:



34. Between which two whole numbers on the number line is the number 5.3 lies?

- A. 1 and 2
- B. 2 and 3
- C. 3 and 4
- D. 5 and 6

Answer:



35.
$$10 + 2 + \frac{1}{10} + \frac{2}{100} =$$

C. 11.11

Answer:



- A. 1.5 kg
- B. 1.05 kg
- C. 1.005 kg
- D. 1.0005 kg



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37. Which of the following has same values -

?

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

B.
$$\frac{75}{100}$$

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



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38. Which of the following fraction has same value as 0.005?

$$\frac{5}{100}$$

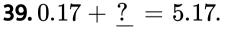
B.
$$\frac{3}{1000}$$

c.
$$\frac{1}{200}$$

D.
$$\frac{1}{20}$$



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40. $8244 \div ? = 1374$.



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41. 10.875 - ? = 1.875.



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42. $6.25 \div 2.5 = 5 \div ?$



43. The value of $\sqrt{6.9 imes 100}$ lies between

A. 800 and 900

B. 200 and 300

C. 80 and 90

D. 20 and 30

Answer:



44. Which of the following is true for $\sqrt{9+4}$

A.
$$\sqrt{9}+\sqrt{4}$$

$$B.3 + 2$$

C.
$$\sqrt{13}$$

D. None of these

Answer:



45. The square of a number 'n' is:

A.
$$(n)^2$$

B. 2n

$$\mathsf{C}.\left(n \times n\right)$$

D. None of these

Answer:



46.
$$\sqrt{0.87} =$$

$$\mathsf{B.}\;\frac{87}{10}$$

c.
$$\frac{\sqrt{87}}{10}$$

D.
$$\sqrt{\frac{87}{100}}$$



47.
$$\sqrt{x^2 imes y^2 imes z^2}=$$

A.
$$\sqrt{x^2} imes\sqrt{y^2} imes\sqrt{z^2}$$

$$B. x \times y \times z$$

C.
$$\sqrt{(xyz)^2}$$

D. None of these

Answer:



48. $\sqrt{13^2} - \sqrt{36} imes \sqrt{4} =$



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49. Given that $(y-4)^2 = 16$, y =



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50. $\sqrt{9} \times \sqrt{9} =$



51. The square root of 16

