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B -147, Sector -6 Noida, UP - 201301,
www.askiitians.com
Email: info@askiitians.com
Tel: 1800-2000-838

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Class: VII
Subject: Math's
Topic: Fractions and decimals
No. of Questions: 20

Q1. Simplify 5/9 -7/12 + 1/2

Sol. 17/36
[Explanation: 5/9 – 7/12 + ½
LCM of 9,12 and 2=36
(20-21+18)/36 = (3-8-21)/3—6=17/36]

Q2. Solve $3\frac{1}{5} + 2\frac{1}{10} - 1\frac{1}{2} - \frac{1}{4}$

Sol. $3\frac{11}{20}$

[Explanation: $3\frac{1}{5} + 2\frac{1}{10} - 1\frac{1}{2} - \frac{1}{4}$
= 16/5 + 21/10 -3/2 – ¼
LCM of 5, 10, 2,4 is 20
=(64+42-30-5)/20=(106-35)/20=71/20=$3\frac{11}{20}$]

Q3. What should be added to $15\frac{2}{3}$ to get $18\frac{5}{6}$?

Sol. $3\frac{1}{6}$

[Explanation: $18\frac{5}{6} - 15\frac{2}{3}$ = 113/6-47/3
LCM of 6 and 3 is 6
(113-94)/6=19/6=$3\frac{1}{6}$]

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Q4. What should be subtracted from $17\frac{3}{4}$ to get $11\frac{2}{3}$?

Sol. $6\frac{1}{12}$

[Explanation: $17\frac{3}{4}$ -$11\frac{2}{3}$ = 71/4-35/3

=(213-140)/12=73/12=$6\frac{1}{12}$]

Q.5 Rohit ate 4/7 part of an apple and his sister aritu ate the remaining part of it. Who ate more and by how much?

Sol. Rohit ate more by 1/7
[Explanation: Part of apple eaten by Rohit= 4/7
Remaining part of apple eaten by Ritu=1-4/7=3/7
Part of apple eaten by Ritu=3/7
Clearly, 4/7>3/7
Rohit ate more apply by(4/7-3/7)= 1/7]

Q6. Simplify $3\frac{4}{7}$ x $2\frac{2}{5}$ x $1\frac{3}{4}$

Sol. 15

[Explanation: $3\frac{4}{7}$ x $2\frac{2}{5}$ x $1\frac{3}{4}$

= $\frac{25}{7} x \frac{12}{5} x \frac{7}{4}$ = 15]

Q7. Find 4/5 of an hour.

Sol. 48 min
[Explanation: 1 hour= 60 min
4/5 of 60 min= $\frac{4}{5} x 60 = 48\,\text{min}$]

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Q8. A book consists of 216 pages. During last week Vikas read ¾ of the book. How many pages did he read?

Sol. 162

[Explanation: Total number of pages in book= 216

Number of pages read=(3/4 of 216)= $\frac{3}{4}x216 = 162$]

Q9. The product of two numbers is $15\frac{5}{6}$. If one of the number is $6\frac{2}{3}$, find the other.

Sol. $2\frac{3}{8}$

[Explanation: Product=$15\frac{5}{6}$ =95/6

First number= $6\frac{2}{3}$ =20/3

Second number= 95/6 ÷ 20/3=19/8=$2\frac{3}{8}$]

Q10 Replace $\square$ with a correct number in $\frac{18}{24} = \frac{\square}{4}$

Sol. a) 3

[Explanation: Divide numerator and denominator with a common factor to get the equivalent fraction. 24/6 = 4, 18/6= 3]

Q11. Express 6kg 8g in kg

Sol. a)6.008 kg

[Explanation: 6 kg 8g in kg
=(6x 1000) g + 8 g
= 6000 g + 8 g=6008 g
= 6008/1000=6.008 kg]

Q12. Rohit purchased a notebook for Rs. 23.75, a pencil for Rs. 2.85 and a pen for Rs. 15.90. He gave a 50 rupee note to the shopkeeper. What amount did he get back?

Sol. Rs.7.50

[Explanation: Cost of notebook= Rs. 23.75
Cost of pencil= Rs. 2.85
Cost of pen= Rs. 15.90

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Total cost of all the items= Rs.(23.75+2.85+15.90)
=Rs. 42.50
Total money left= 50-42.50=Rs.7.50]

Q13 Find the product of 00.47 x 5.3 x 0.06

Sol. 0.14946

[Explanation: 0.47 x 5.3 x 0.06
= 47 x 53 x 6=14946
The product must contain 5 places of decimal
Now, 0.47 x 5.3 x 0.06= 0.14946]

Q14. Evaluate $(0.05)^3$

Sol. 0.000125

[Explanation: $(0.05)^3$= 0.05 x 0.05 x 0.05= 0.000125]

Q15. 1 kg of milk has 0.264 kg fat. How much fat is there in 12.5 kg of milk?

Sol. 3.3 kg

[Explanation: Quantity of fat in 1 of milk= 0.264 kg
Quantity of fat in 12.5 kg milk= 0.264 x 12.5=3.3000 kg= 3.3 kg]

Q16. A bowler took 15 wickets for 321 runs. What is his average score per wicket?

Sol. 21.4 runs

[Explanation: Total score= 321 runs
Total number of wickets= 15
Average score per wicket= 321/15runs=21.4 runs]

Q17. A car covers a distance of 108.9 km in 1.8 hours. What is the average speed of the car?

Sol. 60.5 km/hr

[Explanation: Total distance covered= 108.9 km
Total time taken= 1.8 hours
Average speed of car= distance/time taken
= 108.9/1.8 km/h= 60.5 km/h]

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Q18. Find the average of 4.2, 7.4 and 8.8

Sol. 6.8

[Explanation: Average= Sum of terms/total number of terms= (4.2+7.4+8.8)/3
=20.4/3=6.8]

Q19. Mr. Thukral distributed Rs. 1840 equally among NCC cadets for refreshment. If each cadet received Rs. 28.75, how many cadets are there?

Sol. 64

[Explanation: Total amount to be distributed= Rs.1840
Amount received by each cadet= Rs.28.75
Number of cadets=Total amount/ amount received by each cadet
= 1840/28.75=64]

Q20. Each side of polygon is 2.9 cm in length and its perimeter is 17.4 cm. How many sed does the polygon have?

Sol. 6

[Explanation: Let the number of sides of polygon be x
Length of each side of polygon=2.9 cm
Perimeter of polygon=(2.9 x n)cm
Given perimeter= 17.4 cm
2.9 x n=17.4
n=6]