HW

O.D.M Connect homeworks and worksheets

Maths Worksheet

Ch-2 (Rational numbers)

(1) Ans d) $q \neq 0$

(2) Ans b) 1

(3) Ans $\frac{-48}{60} \Rightarrow \frac{-48}{60} \overset{-24}{\underset{30}{}} \overset{-12}{\underset{15}{}} = \frac{-12}{15} \overset{-4}{\underset{5}{}} \Rightarrow \frac{-4}{5}$

Ans. c) $\frac{-4}{5}$

(4) c) $\frac{16}{20} \Rightarrow$ because $\Rightarrow \frac{16}{20} \overset{\div 4}{\underset{\div 5}{}} = \frac{4}{5}$

(5) c) Unlimited

(6) Ans c) positive integer

Fill in the blanks

(7) $\frac{-3}{8}$ is a negative rational number integers.

(8) On a number line, $\frac{3}{4}$ is to the right side of zero (0).

(9) $\frac{-1}{2}$ is lesser than $\frac{1}{5}$.

(10) $\frac{7}{-8} < \frac{8}{9}$

(11) $\frac{3}{7} > \frac{-5}{6}$

(12) $\frac{5}{6} > \frac{4}{8}$

$\Rightarrow$ LCM of 6 and 8 = 24

$\Rightarrow \frac{5 \times 4}{6 \times 4} = \frac{20}{24}$, $\frac{4 \times 3}{8 \times 3} = \frac{12}{24}$

$\Rightarrow \frac{20}{24} > \frac{12}{24}$

hence $\Rightarrow \boxed{\frac{5}{6} > \frac{12}{24}}$

(13) Ans $\frac{-9}{7} < \frac{-4}{7}$

(14) Ans $\frac{8}{8} = \frac{2}{2}$

(15) The reciprocal of zero does not exist.

(16) Ans According to the question:

$\Rightarrow x \times \frac{-3}{8} = \frac{-9}{16}$

$\Rightarrow x = \frac{-9}{16} \div \frac{-3}{8}$

$\Rightarrow \frac{-9}{\cancel{16}_{2}} \times \frac{\cancel{8}^{1}}{\cancel{-3}_{1}}$

$\Rightarrow \frac{3}{2}$

*) we should multiply $\frac{-3}{8}$ by $\frac{3}{2}$, to get $\frac{-9}{16}$.

(17) Ans*) Cost of $4\frac{1}{2}\left(\frac{9}{2}\right)$ m cloth is $8\frac{1}{2}\left(\frac{17}{2}\right)$

*) Cost of 1 m cloth $\Rightarrow \frac{17}{2} \div \frac{9}{2}$

$\Rightarrow \frac{17}{\cancel{2}_{1}} \times \frac{\cancel{2}^{1}}{\cancel{9}_{1}} \Rightarrow \frac{19}{1}$

∴ So, the cost of one metre cloth is ₹19.

18) Ans) hight of one stair $\Rightarrow 32\frac{5}{7}\left(\frac{229}{7}\right)$

$\Rightarrow$ hight of 14 stairs $\Rightarrow 14 \times \frac{229}{7}$

$\Rightarrow 458$

∴ So, the vertical height of the stairways is 458 cm.

19) Ans $\Rightarrow \frac{-7}{10}, \frac{-5}{8}, \frac{-2}{3}$

LCM of 10, 8, 3 is 120.

$\frac{-7 \times 12}{10 \times 12} = \frac{-84}{120}, \frac{-5 \times 15}{8 \times 15} = \frac{-75}{120},$

$\frac{-2 \times 40}{3 \times 40} = \frac{-80}{120}$

$\Rightarrow \frac{-84}{120}, \frac{-80}{120}, \frac{-75}{120}$

$\Rightarrow \frac{-7}{10} < \frac{-2}{3} < \frac{-5}{8}$

(20) $x + \left(\frac{-53}{25}\right) = -5$

$\Rightarrow x - \frac{53}{25} = -5$

$\Rightarrow x = \frac{-5}{1} + \frac{53}{25}$

$\Rightarrow x = \frac{-125 + 53}{25} = \frac{-73}{25}$

~~The other~~

$\therefore \frac{-73}{25}$ should be added to $\frac{-53}{25}$ to get -5.