



Rational Numbers Ex 1.7 Q9

Answer :

$$(i) x = \frac{2}{3}, y = \frac{3}{2}$$

$$\begin{aligned}\text{So, } (x+y) \div (x-y) &= \left(\frac{2}{3} + \frac{3}{2}\right) \div \left(\frac{2}{3} - \frac{3}{2}\right) \\ &= \frac{13}{6} \times \frac{6}{-5} = \frac{-13}{5}\end{aligned}$$

$$\text{So, } (x+y) \div (x-y) = \frac{-13}{5}$$

$$(ii) x = \frac{2}{5}, y = \frac{1}{2}$$

$$\begin{aligned}\text{So, } (x+y) \div (x-y) &= \left(\frac{2}{5} + \frac{1}{2}\right) \div \left(\frac{2}{5} - \frac{1}{2}\right) \\ &= \frac{9}{10} \times \frac{10}{-1} = -9\end{aligned}$$

$$\text{So, } (x+y) \div (x-y) = -9$$

$$(iii) x = \frac{5}{4}, y = \frac{-1}{3}$$

$$\text{So, } (x+y) \div (x-y) = \left(\frac{5}{4} + \frac{-1}{3}\right) \div \left(\frac{5}{4} - \frac{-1}{3}\right)$$

$$= \frac{11}{12} \times \frac{12}{19} = \frac{11}{19} .$$

$$\text{so, } (x+y) \div (x-y) = \frac{11}{19}$$

$$\text{(iv) } x = \frac{2}{7}, y = \frac{4}{3}$$

$$\text{so, } (x+y) \div (x-y) = \left(\frac{2}{7} + \frac{4}{3}\right) \div \left(\frac{2}{7} - \frac{4}{3}\right)$$

$$= \frac{34}{21} \times \frac{21}{-22} = \frac{-17}{11}$$

$$\text{so, } (x+y) \div (x-y) = \frac{-17}{11}$$

$$\text{(v) } x = \frac{1}{4}, y = \frac{3}{2}$$

$$\text{so, } (x+y) \div (x-y) = \left(\frac{1}{4} + \frac{3}{2}\right) \div \left(\frac{1}{4} - \frac{3}{2}\right)$$

$$= \frac{7}{4} \times \frac{4}{-5} = \frac{-7}{5}$$

$$\text{so, } (x+y) \div (x-y) = \frac{-7}{5} .$$

Rational Numbers Ex 1.7 Q10

Answer :

The cost of $7\frac{2}{3}$ metres of rope is Rs $12\frac{3}{4}$.

$$\therefore \text{ Cost per metre} = 12\frac{3}{4} \div 7\frac{2}{3}$$

$$= \frac{51}{4} \div \frac{23}{3}$$

$$= \frac{51}{4} \times \frac{3}{23}$$

$$= \frac{153}{92}$$

$$= \text{Rs } 1\frac{61}{92}$$

Rational Numbers Ex 1.7 Q11

Answer :

The cost of $2\frac{1}{3}$ metres of cloth is Rs $75\frac{1}{4}$.

$$\therefore \text{Cost per metre} = 75\frac{1}{4} \div 2\frac{1}{3}$$

$$= \frac{301}{4} \div \frac{7}{3}$$

$$= \frac{301}{4} \times \frac{3}{7}$$

$$= \frac{129}{4}$$

$$= \text{Rs } 32\frac{1}{4}$$

Thus, Rs $32\frac{1}{4}$ or Rs 32.25 is the cost of cloth per metre.

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