Fractions Ex 6.9 Q8

Answer :

Time taken by Ravish = $2\frac{1}{5} = \frac{(5\times2)+1}{5} = \frac{11}{5}$ minutes

Time taken by Rahul = $\frac{7}{4}$ minutes

Comparing $\frac{11}{5}$ & $\frac{7}{4}$, we get:

$\frac{11\times4}{5\times4}, \frac{7\times5}{4\times5}$ (LCM of 4 & 5 is 20, so will we convert each fraction into an equivalent fraction with denominator 20.)

$\frac{44}{20} > \frac{35}{20}$

Rahul takes less time, i.e., $\frac{44}{20} - \frac{35}{20} = \frac{44-35}{20} = \frac{9}{20}$ minutes.

Fractions Ex 6.9 Q9

Answer :

Length of the wire = $\frac{7}{8}$ m

Length of one piece of wire = $\frac{1}{4}$ m

Let the length of the second piece of wire be x m.

∴ Length of the wire = Length of one piece + Length of the second piece

$\frac{7}{8} = \frac{1}{4} + x$

$x = \frac{7}{8} - \frac{1}{4}$

$x = \frac{7\times1}{8\times1} - \frac{1\times2}{4\times2} = \frac{7}{8} - \frac{2}{8} = \frac{7-2}{8}$

$x = \frac{5}{8}$ m

Therefore, the length of the second piece is $\frac{5}{8}$ m.

Fractions Ex 6.9 Q10

Answer :

Fraction of Shikha's filled bookshelf = $\frac{5}{6}$

Fraction of Priya's filled bookshelf = $\frac{2}{5}$

Comparing $\frac{5}{6}$ & $\frac{2}{5}$, we get:

LCM of 5 & 6 is 30, so we will convert each fraction into an equivalent fraction with denominator 30.

$= \frac{5\times5}{6\times5}, \frac{2\times6}{5\times6}$

$\frac{25}{30} > \frac{12}{30}$

Shikha's shelf is more full.

∴ $\frac{25}{30} - \frac{12}{30} = \frac{25-12}{30} = \frac{13}{30}$

Fractions Ex 6.9 Q11

Answer :

Total distance between the house and the school = $\frac{9}{10}$ km
Distance covered in the bus = $\frac{1}{2}$ km

Distance covered by walking + Distance covered in the bus = Total distance between the house and the school
Distance covered by walking = Total distance between the house and the school - Distance covered in the bus
Distance covered by walking:
$\frac{9}{10} - \frac{1}{2}$
LCM of 10 and 2 is 10,so we convert each fraction into an equivalent fraction with denominator 10
$= \frac{9\times1}{10\times1} - \frac{1\times5}{2\times5} = \frac{9}{10} - \frac{5}{10}$
$= \frac{9-5}{10}$
$= \frac{4}{10}$ km
$= \frac{4\div2}{10\div2} = \frac{2}{5}$ km $\quad$ (HCF of numerator & denominator is 2)

********** END **********