

MATHS  
CLASS VIII

MM.20

QNO. 1 to 4 (2 marks each)

Reciprocal of  $-\frac{7}{16} = -\frac{16}{7}$  ( $\frac{1}{2}$ )

$$\frac{6}{13} \times -\frac{16}{7} = -\frac{96}{91} = \frac{5}{91} \quad (1\frac{1}{2})$$

$$\begin{array}{r}
 2 | 1188 \\
 2 | 594 \\
 3 | 297 \\
 3 | 99 \\
 3 | 33 \\
 \hline
 11 | 11 \\
 \hline
 & 1
 \end{array} \quad (1)$$

$$\text{Factors to be removed} = 2 \times 2 \times 11 \quad \} \\ = 44$$

$\therefore$  Number should be divided  
by 44 to make it perfect cube

$$\text{Good \%} = 72 \% \quad (1\frac{1}{2})$$

$$\text{Not good \%} = 100 - 72 \\ = 28 \% \quad (\frac{1}{2})$$

Alternative method also  
acceptable

$$\begin{aligned} & (3^2 + 4^2) \times 2^3 \\ & (1 + \frac{1}{4}) \times 4 \\ & (\frac{5}{4})^4 \\ & \frac{625}{256} \times 4 = 5 \end{aligned} \quad ] \quad (1)$$

Sum 5 to 8 (3 marks each)

$$x+7 - \frac{8x}{3} = 17 - \frac{5x}{2}$$

$$\begin{aligned} & x - \frac{8x}{3} + \frac{5x}{2} = 17 - 7 \\ & \frac{6x - 16x + 15x}{6} = 10 \end{aligned} \quad ] \quad (1\frac{1}{2})$$

$$\begin{aligned} & \frac{5x}{6} = 10 \\ & x = 10 \times \frac{6}{5} \\ & x = 12 \end{aligned} \quad ] \quad (1\frac{1}{2})$$

$$\begin{array}{r|rr} 8 & \overline{7921} \\ \hline 64 & \\ 169 & 1521 \\ & 1521 \\ \hline & 5 \end{array} \quad (1)$$

$$\begin{array}{r|rr} 89 & \overline{7921} \\ \hline 64 & \\ 169 & 1521 \\ & 1521 \\ \hline & 5 \end{array} \quad (1\frac{1}{2})$$

$$\sqrt{7921} = 89 \quad (1\frac{1}{2})$$

Cost of TV = Rs 13000

Sales Tax % = 12%

Tax Money = 12% of 13000

$$= \frac{12}{100} \times 13000$$

$$= 1560$$

Amount paid = 13000 + 1560

$$\text{Rs } 14560$$

} (1\frac{1}{2})

} (1\frac{1}{2})

Time taken = n min

1 hour 20 min = 60 + 20

$$= 80 \text{ min}$$

} (1\frac{1}{2})

No. of pipes	6	5
Time (min)	80	n

Inverse proportion

$$80 \times 6 = n \times 5$$

$$\frac{80 \times 6}{5} = n$$

$$96 \text{ min} = n$$

1 hour 36 min = Time taken

} (1\frac{1}{2})