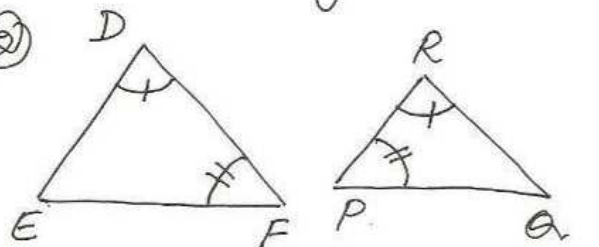
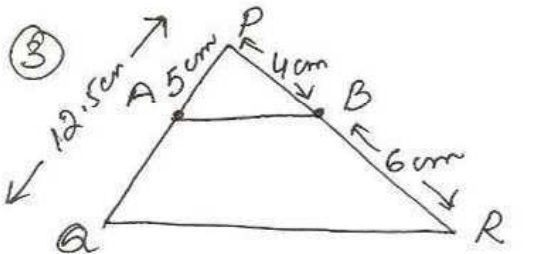


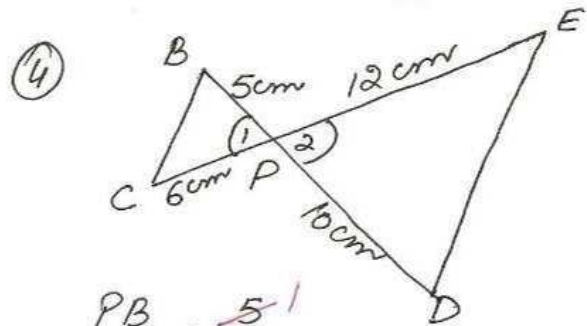
- ① let  $a = 25\text{cm}$ ,  $b = 5\text{cm}$ ,  
 $c = 24\text{cm}$   
 $b^2 + c^2 = 5^2 + 24^2$   
 $= 25 + 576$   
 $= 601$   
 $a^2 = 25^2$   
 $= 625$   
 $\therefore a^2 \neq b^2 + c^2$   
 $\therefore$  not a right  $\Delta$

- ②   
 $\Delta DEF \sim \Delta RPQ$   
 $\angle D = \angle R$   
 $\angle F = \angle Q$  [corres. angles of similar  $\Delta$ s]  
 $\therefore \angle E \neq \angle P$   
 False

- ③   
 $AQ = QR - AR$   
 $= 12.5 - 5$   
 $= 7.5\text{ cm}$   
 $\frac{AP}{AQ} = \frac{5}{7.5} = \frac{2}{3}$  |  $\frac{PB}{BR} = \frac{4}{6} = \frac{2}{3}$

$\Rightarrow \frac{AP}{AQ} = \frac{PB}{BR}$   
 $\Rightarrow AB \parallel QR$  by converse of Basic Prop. theorem

ex 6.2

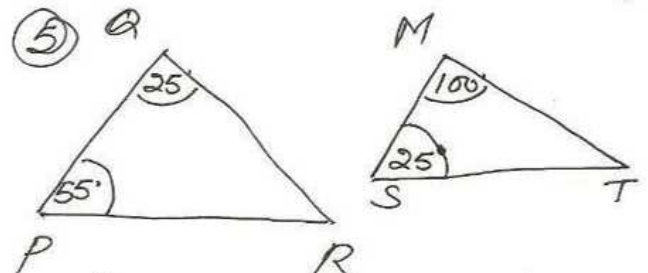


$$\frac{PB}{PD} = \frac{5}{10} = \frac{1}{2}$$

$$\frac{PC}{PE} = \frac{6}{12} = \frac{1}{2}$$

$$\therefore \frac{PB}{PD} = \frac{PC}{PE} \text{ and } \angle 1 = \angle 2$$

$\therefore \Delta PBC \sim \Delta PDE$  by SAS property



In  $\Delta MST$   
 $\angle T = 180^\circ - (\angle M + \angle S)$   
 $= 180^\circ - (100 + 25)$   
 $= 180 - 125$   
 $= 55^\circ$

$$\therefore \angle Q \neq \angle T$$

$\therefore \Delta PQR$  is not similar to  $\Delta TSM$ .