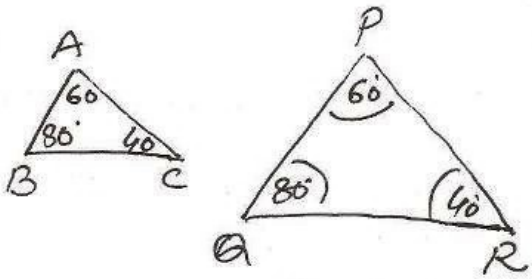
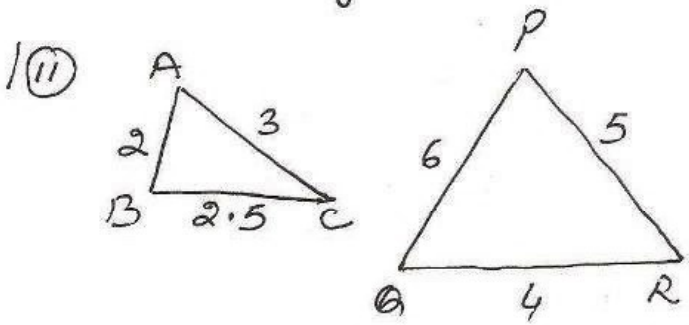
(1) i



$\triangle ABC \sim \triangle PQR$ by AAA similarity

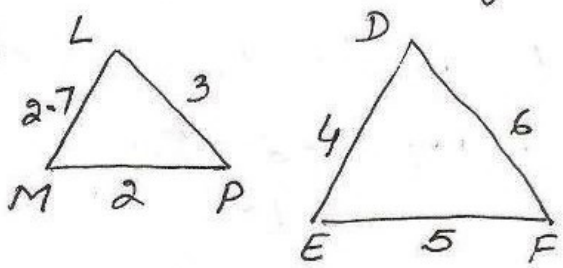
(1) ii



$\frac{AB}{QR} = \frac{BC}{PR} = \frac{AC}{PQ} = \frac{1}{2}$

$\therefore \triangle ABC \sim \triangle QRP$ by SSS similarity

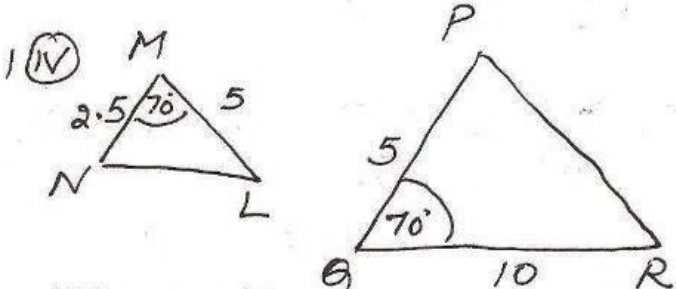
(1) iii



$\frac{MP}{DE} = \frac{PL}{FD} = \frac{1}{2} \neq \frac{LM}{EF}$

$\therefore$ $\triangle$s are not Similar

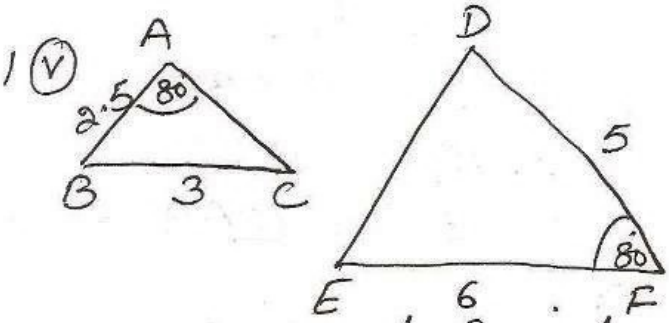
(1) iv



$\frac{NM}{PQ} = \frac{ML}{QR} = \frac{1}{2}$, $\angle M = \angle Q = 70$

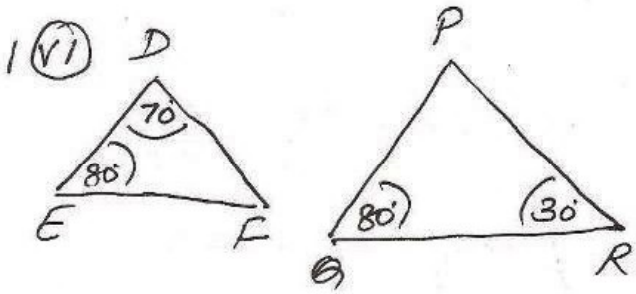
$\therefore \triangle NML \sim \triangle PQR$ by SAS prop.

(1) v



$\triangle$s are not Similar
$\because \angle A$ is not included

(1) vi

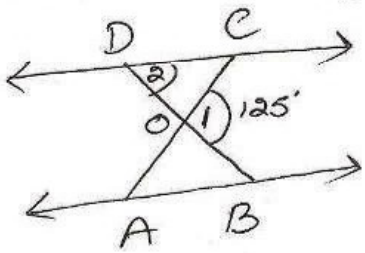


In $\triangle DEF$
$\angle F = 180 - (80+70)$
$= 30$

In $\triangle PQR$
$\angle P = 180 - (80+30)$
$= 70$

$\therefore \triangle DEF \sim \triangle PQR$ by AAA Similarity

(2)



To find $\angle DOC$, $\angle DCO$, $\angle OAB$

Sol $\angle 1 + \angle DOC = 180$ (linear pair axiom)
$\Rightarrow \angle DOC = 180 - 125$
$= 55$

$\angle 1 = \angle 2 + \angle DCO$ (exterior $\angle$ prop)
$\angle DCO = 125 - 70$
$= 55$

$\triangle ODC \sim \triangle OBA$

$\therefore \angle OCD = \angle OAB$
$55 = \angle OAB$