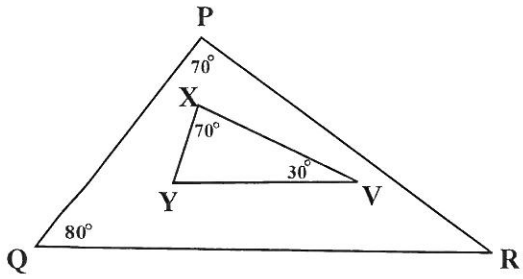
Worksheet 2015-9ℰP-00001(1)

(1) (a) Prove that Δ XYV /// Δ PQR



$\hat{Y}$ = 80° [int. ∠s of Δ]

$\hat{R}$ = 30° ["]

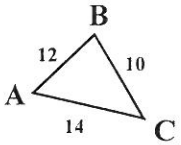
In Δ XYV and Δ PQR :

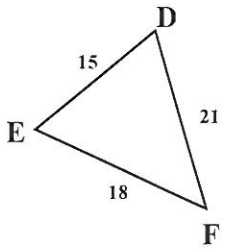
* $\hat{X}$ = $\hat{P}$ [both 70°]
* $\hat{Y}$ = $\hat{Q}$ [both 80°]
* $\hat{V}$ = $\hat{R}$ [both 30°]

∴ Δ XYV /// Δ PQR [∠∠∠]

(b) ∴ $\frac{XY}{PQ} = \frac{YV}{QR} = \frac{XV}{PR}$ [Δ XYV /// Δ PQR]

(2) Prove that Δ ABC /// Δ FED





$\frac{AB}{EF} = \frac{12}{18} = \frac{2}{3}$

$\frac{BC}{DE} = \frac{10}{15} = \frac{2}{3}$

$\frac{AC}{DF} = \frac{14}{21} = \frac{2}{3}$

∴ $\frac{AB}{EF} = \frac{BC}{DE} = \frac{AC}{DF}$

∴ Δ ABC /// Δ FED [sides proportional]

(b) ∴ $\hat{A}$ = $\hat{F}$ and $\hat{B}$ = $\hat{E}$ and $\hat{C}$ = $\hat{D}$