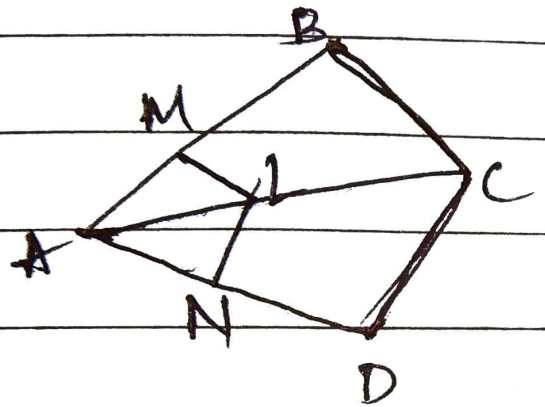
$$= \frac{AB}{DB} = \frac{AC}{AE} = \frac{DB}{AB} = \frac{AE}{AC} \quad [\text{proved}]$$

Q2 Exercise 6.2

(2) (i)



i) $\frac{PE}{EQ} = \frac{3.9}{3} = \frac{1.3}{1}$

$\Rightarrow \frac{PF}{FR} = \frac{3.6}{2.4} = \frac{3}{2} = \frac{1.5}{1}$ $\left\langle \frac{PE}{EQ} = \frac{PF}{FR} \right\rangle$

(ii) $\frac{PE}{EQ} = \frac{4}{4.5} = \frac{40}{45} = \frac{8}{9}$.

$\frac{PF}{FR} = \frac{8}{9}$ $\left\langle \frac{PE}{EQ} = \frac{PF}{FR} \right\rangle$

(iii) $\frac{PE}{EQ} = \frac{0.18}{1.28 - 0.18} = \frac{0.18}{1.10} = \frac{9}{55}$

$\frac{PF}{FR} = \frac{0.36}{2.56 - 0.36} = \frac{0.36}{2.20} = \frac{9}{55}$

$\therefore$

$= \frac{PF}{FR} = \frac{PE}{EQ} = \langle EF \parallel QR \rangle$

Q3. $\frac{AM}{AB} = \frac{AN}{AD}$. [To prove]

$\Rightarrow$ In $\triangle ABC$, $LM \parallel CD$.

$= \frac{AM}{AB} = \frac{AL}{AC}$ (by BPT) — (1).

In $\triangle ADC$, $LN \parallel CD$.

$= \frac{AN}{AD} = \frac{AL}{AC}$ (by BPT) — (2)

from (1) & (2),

$\frac{AM}{AB} = \frac{AL}{AC} = \frac{AN}{AD} = \frac{AL}{AC}$

$= \frac{AM}{AB} = \frac{AN}{AD}$ (proved)