b) Slope (AB) $= a_{(AB)}$

$= -\frac{1}{2}$.

Slope (EF) = Slope (d)

$= 2$.

but Slope (AB) x Slope of (EF) $= -1$

Then (AB) is perpendicular to (EF)

but (AB) cut (EF) at B the midpt of [EF] (proved)

Thus, (AB) is the perp. bisector of [EF].

c) $EF = \sqrt{(x_F - x_E)^2 + (y_F - y_E)^2}$

$= \sqrt{(4) + (16)}$

$EF = \sqrt{20}$ cm.

In ΔFEA we have

(AB) is the perp. bisector of [EF] (proved)

So, AE = AF

& AE = 5 cm

then, AE = AF = 5 cm

but $EF = \sqrt{20}$ cm

Thus, Δ EAF is an isosceles Δ (having 2 equal sides)

d) perimeter of BEA = sum of sides.

but $AB = \sqrt{(x_B - x_A)^2 + (y_B - y_A)^2}$

$= \sqrt{16 + 4}$

$= \sqrt{20}$

$AB = 2\sqrt{5}$ cm

& $BE = \frac{1}{2} EF$

$= \sqrt{5}$ cm

B is midpt of [FE] (proved)

$P_{BEA} = AB + BE + AE$.

$= (3\sqrt{5} + 5)$ cm.