

(M)

HUISWERK: Bl. 210; Oef 1; # 1 en 3

(P)

2. Bepaal die koördinate van die onbekende punte indien die lengte gegee is:

2.1 D(-7; -11); E(e; -19) en lengte =  $\sqrt{80}$

$$d_{DE} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$\sqrt{80} = \sqrt{(e + 7)^2 + (-19 + 11)^2}$$

$$(\sqrt{80})^2 = (\sqrt{(e + 7)^2 + (-8)^2})^2$$

$$80 = (e + 7)^2 + 64$$

$$\pm \sqrt{80 - 64} = \sqrt{(e + 7)^2}$$

$$\pm 4 = e + 7 \text{ of } -4 = e + 7$$

$$\therefore 4 - 7 = e \text{ of } -4 - 7 = e$$

$$\therefore e = -3 \text{ of } e = -11$$

(Pi)

2.2 F(3; 8); G(8; g) en lengte =  $\sqrt{41}$

$$d_{FG} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$\sqrt{41} = \sqrt{(8 - 3)^2 + (g - 8)^2}$$

$$(\sqrt{41})^2 = (\sqrt{(5)^2 + (g - 8)^2})^2$$

$$41 = 25 + (g - 8)^2$$

$$\pm \sqrt{41 - 25} = \sqrt{(g - 8)^2}$$

$$\pm 4 = g - 8$$

$$4 + 8 = g \text{ of } -4 + 8 = g$$

$$\therefore g = 12 \text{ of } g = 4$$

(W) 2.3  $K(k; 6); L(10; -4)$  en lengte = 11,66

$$Q_{KL} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$11,66 = \sqrt{(10 - k)^2 + (-4 - 6)^2}$$

$$(11,66)^2 = (\sqrt{(10 - k)^2 + (-10)^2})^2$$

$$135,96 = (10 - k)^2 + 100$$

$$\pm \sqrt{135,96 - 100} = \sqrt{(10 - k)^2}$$

$$5,99 = 10 - k \quad \text{of} \quad -5,99 = 10 - k$$

$$k = 10 - 5,99 \quad \text{of} \quad k = 10 + 5,99$$

$$\therefore k \approx 4 \quad \text{of} \quad k \approx 16$$

(W) 2.4  $P(-7; p); Q(-2; -2)$  en lengte = 7,81

(Di) 2.5  $R(-6; r); S(-3; 5)$  en lengte =  $\sqrt{18}$

(Di) 2.6  $A(8; 10); B(b; 7,5)$  en lengte =  $\sqrt{12,5}$

(Do) 3. Bepaal die omtrek van die vierhoek FGHI.

