

Penyelesaian Lengkap

PRAKTIS 7

Bahagian A

1 Jarak/Distance of $PQ = 6 \times 2$
 $= 12$ unit/units

Jawapan/Answer: C

2 Jarak/Distance of $RS = 5 \times 3$
 $= 15$ unit/units

Jawapan/Answer: D

3 Jarak/Distance of $AB = 3 - (-4)$
 $= 7$ unit/units

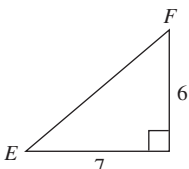
Jawapan/Answer: C

4 Jarak/Distance of $CD = 9 - (-2)$
 $= 11$ unit/units

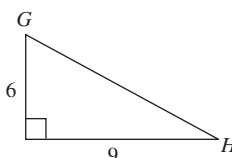
Jawapan/Answer: D

5 $8 - x = 6$ $10 - y = 7$
 $x = 8 - 6$ $y = 10 - 7$
 $= 2$ $= 3$

Jawapan/Answer: A

6  $EF^2 = 6^2 + 7^2$
 $\sqrt{EF^2} = \sqrt{85}$
 $EF = 9.22$ cm

Jawapan/Answer: B

7  $GH^2 = 6^2 + 9^2$
 $\sqrt{GH^2} = \sqrt{117}$
 $GH = 10.82$ cm

Jawapan/Answer: A

8 A Jarak/Distance = 5 unit/units

B Jarak/Distance = 4 unit/units

C Jarak/Distance = $\sqrt{3^2 + 4^2}$
 $= \sqrt{25}$
 $= 5$ unit/units

D Jarak/Distance = $\sqrt{(-6)^2 + 8^2}$
 $= \sqrt{100}$
 $= 10$ unit/units

Jawapan/Answer: B

9 $PQ = 13$

$\sqrt{(11 + 1)^2 + (8 - m)^2} = 13$

$144 + (8 - m)^2 = 169$

$(8 - m)^2 = 25$

$64 - 16m + m^2 = 25$

$m^2 - 16m + 39 = 0$

$(m - 3)(m - 13) = 0$

$m = 3, m = 13$

Jawapan/Answer: C

10 $PT = TQ$

Jawapan/Answer: B

11 Titik tengah/Midpoint = $\left(\frac{-2+4}{2}, \frac{8+2}{2}\right)$
 $= (1, 5)$

Jawapan/Answer: A

12 Titik tengah/Midpoint = $\left(\frac{-3+7}{2}, \frac{9-7}{2}\right)$
 $= (2, 1)$

Jawapan/Answer: D

13 Titik tengah/Midpoint = (3, q)

$\left(\frac{p+10}{2}, \frac{5+9}{2}\right) = (3, q)$

$\frac{p+10}{2} = 3$ $q = \frac{5+9}{2}$

$p + 10 = 6$ $q = 7$

$p = -4$

Jawapan/Answer: C

14 $M(3, y), L(x, 0)$

$M =$ Titik tengah bagi KL /Midpoint of KL

$(3, y) = \left(\frac{8+x}{2}, \frac{10+0}{2}\right)$

$\frac{8+x}{2} = 3$

$8+x = 6$

$x = -2$

$\therefore L(-2, 0)$

Jawapan/Answer: B

15 $L =$ Titik tengah bagi KM /Midpoint of KM

$(1, 1) = \left(\frac{-2+x}{2}, \frac{3+y}{2}\right)$

$\frac{-2+x}{2} = 1$ $\frac{3+y}{2} = 1$

$-2+x = 2$ $3+y = 2$
 $x = 4$ $y = -1$

$\therefore M(4, -1)$

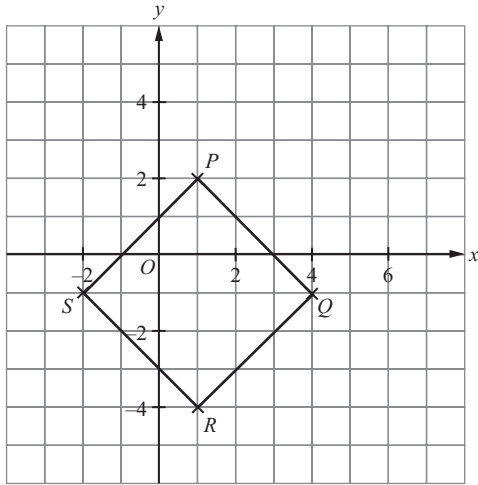
Jawapan/Answer: A

16 Luas/Area = $\frac{1}{2} \times 8 \times 4$

$= 16$ unit²/units²

Jawapan/Answer: B

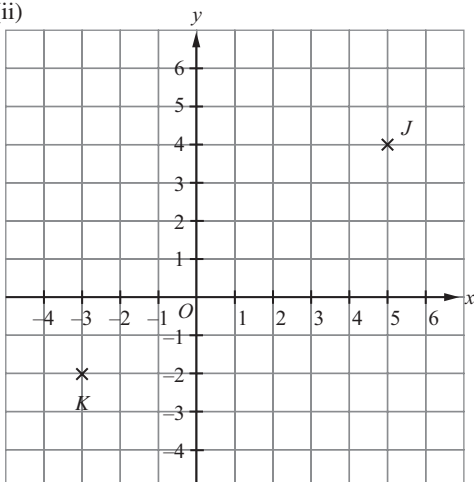
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Segi empat sama/Square
Jawapan/Answer: C

Bahagian B

- 1 (a) (i) $PQ = 6 \times 5$
 $= 30$ unit/units
 (ii) $RS = 5 \times 4$
 $= 20$ unit/units
- (b) (i) $x = 3 + 6 = 9$ (ii) $y = 2 + 4 = 6$
- 2 (a) (i) Jarak/Distance = $17 - 9$
 $= 8$ unit/units
 (ii) Jarak/Distance = $3 - (-2)$
 $= 5$ unit/units
- (b) (i) Titik tengah/Midpoint = $\left(\frac{2-4}{2}, \frac{9+3}{2}\right)$
 $= (-1, 6)$ [✓]
 (ii) Titik tengah/Midpoint = $\left(\frac{-3-5}{2}, \frac{6+2}{2}\right)$
 $= (-4, 4)$ [✗]
- 3 (a) $P(-2, 10), R(5, -6)$
 (b) Titik T berada 3 unit ke kiri dari paksi- y dan 5 unit ke atas dari paksi- x .
Point T is 3 units to the left of y -axis and 5 units upwards from the x -axis.
- 4 (a) (i) $J(5, 4)$
 (ii)

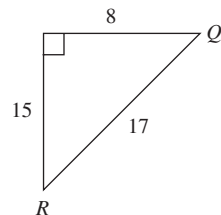


(b) Titik tengah JK /Midpoint of $JK = \left(\frac{5-3}{2}, \frac{4-2}{2}\right)$
 $= (1, 1)$

Bahagian C

- 1 (a) (i) $x = 8, y = 1 + 10 = 11$
 $A(8, 11)$
 (ii) Titik tengah/Midpoint = $\left(\frac{2+8}{2}, \frac{1+11}{2}\right)$
 $= (5, 6)$
- (b) (i) $L(1, 2)$
 $KL = LM = 4$ unit/units
 $x = 1 + 4 = 5$
 (ii) $JL = 8 - 2$
 $= 6$ unit/units
- (iii) Luas JKM /Area of $JKM = \frac{1}{2} \times KM \times JL$
 $= \frac{1}{2} \times (4 + 4) \times 6$
 $= \frac{1}{2} \times 8 \times 6$
 $= 24$ unit²/units²
- (c) (i) $S(0, 2)$
 Titik tengah QS = Titik tengah PR
 Midpoint of QS = Midpoint of PR
 $\left(\frac{0+m}{2}, \frac{2+6}{2}\right) = \left(\frac{-3+9}{2}, \frac{6+2}{2}\right)$
 $\frac{m}{2} = \frac{-3+9}{2}$
 $m = 6$
- (ii) Luas $PQRS$ /Area of $PQRS = SR \times h$
 $= (9 - 0) \times (6 - 2)$
 $= 9 \times 4$
 $= 36$ unit²/units²
- 2 (a) (i) $x = -5, y = 2$
 $H(-5, 2)$
 (ii) Luas $EFGH$ /Area of $EFGH = 8 \times 5$
 $= 40$ unit²/units²

- (b) (i) $x + 9 = 16$
 $x = 7$
 (ii) Biar/Let $R(h, k)$



Titik tengah PQ /Midpoint of PQ
 $= \left(\frac{-9+7}{2}, \frac{5+5}{2}\right)$
 $= (-1, 5)$

$$\begin{aligned}
 h &= -1 \\
 5 - k &= 15 \\
 k &= 5 - 15 \\
 &= -10 \\
 \therefore R &(-1, -10)
 \end{aligned}$$

(c) $M(h, k)$

K = Titik tengah JM /Midpoint of JM

$$(-2, 6) = \left(\frac{-8 + h}{2}, \frac{10 + k}{2} \right)$$

$$\begin{aligned}
 -8 + h &= -4 & 10 + k &= 12 \\
 h &= -4 + 4 & k &= 2 \\
 &= 0 & &
 \end{aligned}$$

$M(4, 2)$

L = Titik tengah KM /Midpoint of KM

$$= \left(\frac{-2 + 4}{2}, \frac{6 + 2}{2} \right)$$

$$= (1, 4)$$

3 (a) $x = -25$

$$19 - y = 28$$

$$y = -9$$

$$\therefore S(-25, -9)$$

(b) Luas $PQRS$ /Area of $PQRS = 1\,428 \text{ unit}^2/\text{units}^2$

$$\frac{1}{2} \times (60 + SR) \times 28 = 1\,428$$

$$14(60 + SR) = 1\,428$$

$$60 + SR = 102$$

$$SR = 42 \text{ unit/units}$$

Biar/Let $R(h, k)$

$$h + 25 = 42$$

$$h = 17$$

$$k = -9$$

$$\therefore R(17, -9)$$

(c) $QR = \sqrt{(35 - 17)^2 + (19 + 9)^2}$

$$= \sqrt{324 + 784}$$

$$= \sqrt{1\,108}$$

$$= 33.287 \text{ unit/units}$$

$$\text{Perimeter} = 60 + 33.287 + 42 + 28$$

$$= 163.287 \text{ unit/units}$$

(d) Titik tengah QS /Midpoint of QS

$$= \left(\frac{35 - 25}{2}, \frac{19 - 9}{2} \right)$$

$$= (5, 5)$$