

Penyelesaian Lengkap

PRAKTIS 5

Bahagian A

1 Jawapan/Answer: C

2 Jawapan/Answer: B

3 Diameter = $9 + 25$
 $= 34$ cm
 Jejari/Radius = 17 cm
 $OQ = 8$ cm, $AQ = 15$ cm

$AB = 15 + 15$
 $= 30$ cm

Jawapan/Answer: D

4 $PQ = QR = 12$ cm

$OQ = 5$ cm

$SOQ = OS + OQ$
 $= 13 + 5$
 $= 18$ cm

Jawapan/Answer: B

5 $KL = LM = 12$ cm

$OK^2 = 5^2 + 12^2$
 $= 169$

$OK = 13$ cm

$OJ = 13$ cm

Jawapan/Answer: A

6 Lilitan/Circumference = $2\pi r$
 $= 2 \times \frac{22}{7} \times 10.5$
 $= 66$ cm

Jawapan/Answer: A

7 Lilitan/Circumference = $2\pi r$
 $= 2 \times \frac{22}{7} \times 4.2$
 $= 26.4$ cm

Jawapan/Answer: C

8 $2\pi r = 94.26$
 $2 \times 3.142 \times r = 94.26$
 $r = \frac{94.26}{6.284} = 15$

Jawapan/Answer: D

9 Luas/Area = $\frac{22}{7} \times 8.4^2$
 $= 221.76$ cm²

Jawapan/Answer: A

10 Luas/Area = $\frac{22}{7} \times 17.5^2$
 $= 962.5$ cm²

Jawapan/Answer: B

11 $\pi r^2 = 1386$
 $\frac{22}{7} \times r^2 = 1386$

$$r^2 = 1386 \times \frac{7}{22}$$

$$\sqrt{r^2} = \sqrt{441}$$

$$r = 21 \text{ cm}$$

Jawapan/Answer: C

12 $2\pi r = 88$

$$2 \times \frac{22}{7} \times r = 88$$

$$r = 88 \times \frac{7}{44}$$

$$= 14 \text{ cm}$$

$$\text{Luas/Area} = \frac{22}{7} \times 14^2$$

$$= 616 \text{ cm}^2$$

Jawapan/Answer: D

13 $\pi r^2 = 124.74$

$$\frac{22}{7} \times r^2 = 124.74$$

$$r^2 = 124.74 \times \frac{7}{22}$$

$$\sqrt{r^2} = \sqrt{39.69}$$

$$r = 6.3 \text{ cm}$$

$$\text{Lilitan/Circumference} = 2 \times \frac{22}{7} \times 6.3$$

$$= 39.6 \text{ cm}$$

Jawapan/Answer: A

14 Panjang lengkok PQ /Length of arc PQ

$$= \frac{63^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times 12$$

$$= 13.2 \text{ cm}$$

Jawapan/Answer: B

15 $RS = \frac{279^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times 28$

$$= 136.4 \text{ cm}$$

Jawapan/Answer: D

16 Panjang lengkok AB /Length of arc $AB = 44$ cm

$$\frac{144^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times r = 44$$

$$r = 44 \times \frac{35}{88}$$

$$= 17.5 \text{ cm}$$

Jawapan/Answer: B

17 Luas sektor/Area of sector = $\frac{216^\circ}{360^\circ} \times \frac{22}{7} \times 17.5^2$
 $= 577.5$ cm²

Jawapan/Answer: C

18 Panjang lengkok PQ /Length of arc PQ

$$= \frac{60^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times 7$$

$$= 7.33 \text{ cm}$$

$$\begin{aligned} \text{Perimeter} &= 7.33 + 3 + 10 + 3 \\ &= 23.33 \text{ cm} \end{aligned}$$

Jawapan/Answer: A

19 Luas kawasan berlorek

Area of shaded region

$$\begin{aligned} &= (28 \times 14) - 2 \left(\frac{90^\circ}{360^\circ} \times \frac{22}{7} \times 14^2 \right) \\ &= 392 - 308 \\ &= 84 \text{ cm}^2 \end{aligned}$$

Jawapan/Answer: B

20 Luas kawasan berlorek

Area of shaded region

$$\begin{aligned} &= \frac{72^\circ}{360^\circ} \times \pi \times 8^2 - \frac{72^\circ}{360^\circ} \times \pi \times 3^2 \\ &= \frac{72^\circ}{360^\circ} \pi (8^2 - 3^2) \\ &= \frac{22}{35} (64 - 9) \\ &= 34.57 \text{ cm}^2 \end{aligned}$$

Jawapan/Answer: D

Bahagian B

1 a: Diameter

b: Lengkok/Arc

c: Sektor/Sector

d: Perentas/Chord

2 (a) (i) ✓

(ii) ✓

(b) (i) $\frac{x^\circ}{360^\circ} \times 2\pi r$

(ii) $\frac{x^\circ}{360^\circ} \times \pi r^2$

3 (a) PALSU/FALSE

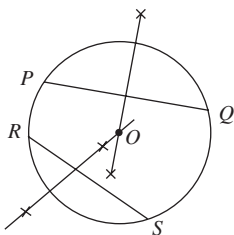
(b) BENAR/TRUE

(c) BENAR/TRUE

(d) PALSU/FALSE

Bahagian C

1 (a)



(b) Luas PQRS/Area of PQRS = $20 \times 16 = 320 \text{ m}^2$

$$\begin{aligned} \text{Luas TSW/Area of TSW} &= \frac{1}{2} \times 10 \times 14 \\ &= 70 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \text{Luas QUV/Area of QUV} &= \frac{90^\circ}{360^\circ} \times \frac{22}{7} \times 10^2 \\ &= 78.57 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \text{Luas kawasan berlorek/Area of shaded region} &= 320 - 70 - 78.57 \\ &= 171.43 \text{ cm}^2 \end{aligned}$$

(c) Sudut sektor major/Angle of major sector

$$= \frac{7}{9} \times 360^\circ$$

$$= 280^\circ$$

Luas sektor major/Area of major sector

$$= \frac{280^\circ}{360^\circ} \times \frac{22}{7} \times 10.5^2$$

$$= 269.5 \text{ cm}^2$$

2 (a) Panjang lengkok RS/Length of arc RS

$$= \frac{48^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times 5$$

$$= 4.1905 \text{ cm}$$

Panjang lengkok PQ/Length of arc PQ

$$= \frac{48^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times 12$$

$$= 10.0571 \text{ cm}$$

Perimeter kawasan berlorek

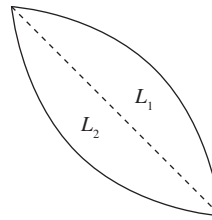
Perimeter of shaded region

$$= 4.1905 + 10.0571 + 7 + 7$$

$$= 28.2476 \text{ cm}$$

$$= 28.25 \text{ cm}$$

(b)



$$L_1 = L_2$$

$$L_1 = \left(\frac{90^\circ}{360^\circ} \times \frac{22}{7} \times 14^2 \right) - \left(\frac{1}{2} \times 14 \times 14 \right)$$

$$= 154 - 98$$

$$= 56 \text{ cm}^2$$

$$L_2 = 56 \text{ cm}^2$$

Luas kawasan berlorek = Luas PQRS - $2 \times L_1$

Area of shaded region = Area of PQRS - $2 \times L_1$

$$= 14 \times 14 - 2(56)$$

$$= 196 - 112$$

$$= 84 \text{ cm}^2$$

(c) Panjang lengkok ST

Length of arc ST

$$= \frac{90^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times 7$$

$$= 11 \text{ cm}$$

$$PR^2 = 12^2 + 16^2$$

$$\sqrt{PR^2} = \sqrt{400}$$

$$PR = 20 \text{ cm}$$

Perimeter kawasan berlorek

Perimeter of shaded region

$$= 11 + 5 + 20 + 9$$

$$= 45 \text{ m}$$