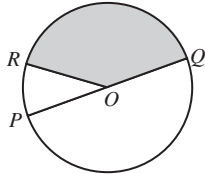


# Jawapan

## Praktis 5

### Praktis Formatif

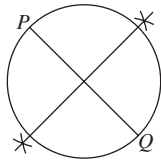
1



Kawasan berlorek OQR ialah sektor bulatan.  
The shaded region OQR is a sector of circle.

Jawapan/Answer: D

2



3 (a)

Perentas  
Chord

Sebahagian daripada lilitan.  
Part of a circumference.

(b)

Lengkuk  
Arc

Perimeter sebuah bulatan.  
Perimeter of a circle.

(c)

Lilitan  
Circumference

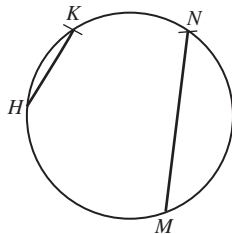
Rantau yang dibatasi oleh lengkuk dan perentas.  
Region bounded by an arc and a chord.

(d)

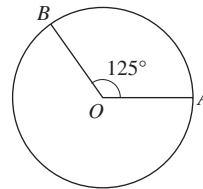
Tembereng  
Segment

Garis lurus yang menyambungkan dua titik pada bulatan.  
Straight line joining two points on the circle.

4



5



6 Jejari bulatan adalah tidak berserenjang dengan perentas.

Radius of circle is not perpendicular to chord.

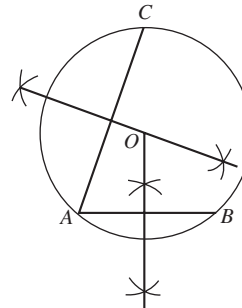
Jawapan/Answer: C

7 (a) ✓

(b) ✓

(c) ✗

8 1.4 cm



$$\begin{aligned} 9 \text{ (a) } OH^2 &= 51^2 - 45^2 \\ &= 576 \\ OH &= \sqrt{576} \\ &= 24 \text{ cm} \end{aligned}$$

$$\begin{aligned} \text{(b) Tinggi minyak/Height of oil} &= 51 \text{ cm} + 24 \text{ cm} \\ &= 75 \text{ cm} \end{aligned}$$

10 Luas bagi kawasan berlorek

Area of the shaded region

$$\begin{aligned} &= \pi(6)^2 - \pi(3)^2 \\ &= 36\pi - 9\pi \\ &= 27\pi \text{ cm}^2 \end{aligned}$$

Jawapan/Answer: C

11 (a)

Lilitan (cm) Circumference (cm)	Diameter (cm) Diameter (cm)	Lilitan Diameter Circumference Diameter
7.86	2.5	3.14
11.31	3.6	3.14
13.19	4.2	3.14
17.91	5.7	3.14
21.36	6.8	3.14

$$(b) \frac{\text{Lilitan/Circumference}}{\text{Diameter}} = \boxed{3.14}$$

$$\text{Lilitan/Circumference} = \boxed{3.14} \times \text{Diameter}$$

12 (a) Lilitan/Circumference  
 $= 2 \times \frac{22}{7} \times 7$   
 $= 44 \text{ cm}$   
 Luas/Area  $= \frac{22}{7} \times 7^2$   
 $= 154 \text{ cm}^2$

(b)  $220 = 2 \times \frac{22}{7} \times r$   
 $1540 = 44 \times r$   
 $r = 35 \text{ mm}$   
 Luas/Area  $= \frac{22}{7} \times 35^2$   
 $= 3850 \text{ mm}^2$

(c)  $13.86 = \frac{22}{7} \times r^2$   
 $97.02 = 22r^2$   
 $r^2 = 4.41$   
 $r = 2.1 \text{ m}$   
 Lilitan/Circumference  $= 2 \times \frac{22}{7} \times 2.1$   
 $= 13.2 \text{ m}$

13 (a) Lilitan objek/Circumference of object  
 $= 2 \times 3.14 \times 1.4$   
 $= 8.8 \text{ cm}$

(b) Lilitan objek/Circumference of object  
 $= 2 \times 3.14 \times 2.1$   
 $= 13.2 \text{ cm}$

(c) Lilitan objek/Circumference of object  
 $= 2 \times 3.14 \times 1.5$   
 $= 9.42 \text{ cm}$

(d) Lilitan objek/Circumference of object  
 $= 2 \times 3.14 \times 20$   
 $= 125.6 \text{ cm}$

14 Bilangan sektor berlorek = 12  
 Number of shaded sectors = 12  
 Bilangan sektor yang tidak berlorek = 12  
 Number of unshaded sectors = 12

$$x = \frac{1}{2} \times \text{lilitan/circumference}$$

$$= \frac{1}{2} \times 2\pi \times j$$

$$= \pi \times j$$

$$y = j$$

Luas bulatan/Area of circle  
 $= x \times y$   
 $= \pi \times j \times j$   
 $= \pi \times j^2$

15 (a) Panjang lengkok/Length of arc  
 $= \frac{30^\circ}{360^\circ} \times 2\pi \times 12$   
 $= 2\pi \text{ cm}$

(b) Panjang lengkok/Length of arc  
 $= \frac{160^\circ}{360^\circ} \times 2\pi \times 9$   
 $= 8\pi \text{ cm}$

(c) Panjang lengkok/Length of arc  
 $= \frac{210^\circ}{360^\circ} \times 2\pi \times 6$   
 $= 7\pi \text{ cm}$

16 (a) Panjang lengkok/Length of arc  
 $= \frac{45^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times 14$   
 $= 11 \text{ cm}$

(b)  $4\pi = \frac{80^\circ}{360^\circ} \times 2\pi \times r$   
 $2 = \frac{2}{9}r$   
 $r = 9 \text{ cm}$

(c)  $10\pi = \frac{x}{360^\circ} \times 2\pi \times 15$   
 $\frac{1}{3} = \frac{x}{360^\circ}$   
 $x = \frac{1}{3} \times 360^\circ$   
 $= 120^\circ$

17  $\frac{200^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times j = 440$   
 $j = 126$

18 (a) Luas sektor/Area of sector  
 $= \frac{70^\circ}{360^\circ} \times \frac{22}{7} \times 6^2$   
 $= 22 \text{ cm}^2$

(b) Luas sektor/Area of sector  
 $= \frac{210^\circ}{360^\circ} \times \frac{22}{7} \times 18^2$   
 $= 594 \text{ cm}^2$

19 (a)  $36.96 = \frac{x}{360^\circ} \times \frac{22}{7} \times 8.4^2$   
 $x = \frac{36.96}{8.4^2} \times \frac{7}{22} \times 360^\circ$   
 $= 60^\circ$

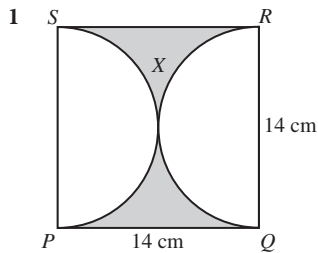
(b)  $99 = \frac{140^\circ}{360^\circ} \times \frac{22}{7} \times r^2$   
 $r^2 = 99 \times \frac{360^\circ}{140^\circ} \times \frac{7}{22}$   
 $= 81$   
 $r = 9 \text{ cm}$

20 (a)  $PR^2 = 25^2 - 20^2$   
 $= 625 - 400$   
 $= 225$   
 $PR = 15 \text{ cm}$

(b) Lilitan bulatan/Circumference of circle  
 $= 2 \times 3.14 \times 5$   
 $= 31.4 \text{ cm}$

(c) Perimeter bagi rantau berlorek  
 Perimeter of the shaded region  
 $= 20 + 25 + 15 + 31.4$   
 $= 91.4 \text{ cm}$

**Praktis Sumatif**



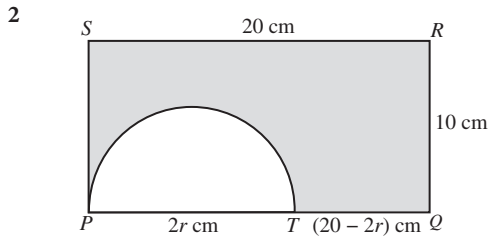
Luas bagi rantau berlorek  
Area of the shaded region

$$= 14 \times 14 - \frac{22}{7} \times 7^2$$

$$= 196 - 154$$

$$= 42 \text{ cm}^2$$

Jawapan/Answer: C



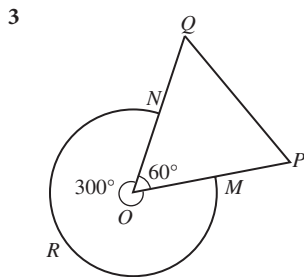
$$\pi r + (20 - 2r) + 10 + 20 + 10 = 68$$

$$\frac{22}{7}r - 2r + 60 = 68$$

$$\frac{8}{7}r = 8$$

$$r = 7$$

Jawapan/Answer: C



Sudut refleksi POQ

Reflex angle POQ

$$= 360^\circ - 60^\circ$$

$$= 300^\circ$$

Panjang lengkok MRN

Length of arc MRN

$$= \frac{300^\circ}{360^\circ} \times 2\pi \times 15$$

$$= 25\pi \text{ cm}$$

Jawapan/Answer: C

4

$$\frac{20^\circ}{360^\circ} \times \pi \times x^2 = \frac{80^\circ}{360^\circ} \times \pi \times 5^2$$

$$x^2 = 100$$

$$x = 10$$

Jawapan/Answer: B

5 Luas bagi rajah

Area of the diagram

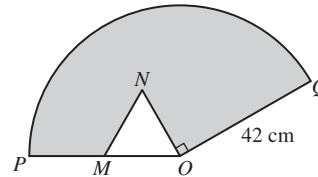
$$= \frac{30^\circ}{360^\circ} \times \pi \times 12^2 + \frac{1}{2} \times \pi \times 6^2$$

$$= 12\pi + 18\pi$$

$$= 30\pi \text{ cm}^2$$

Jawapan/Answer: B

6



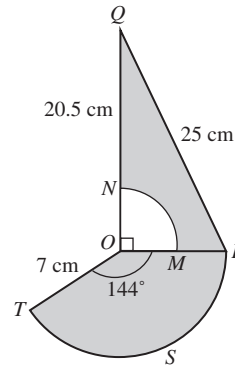
Perimeter bagi rantau berlorek

Perimeter of the shaded region

$$= 110 + 21 + 21 + 21 + 42$$

$$= 215 \text{ cm}$$

7



Luas bagi rantau berlorek

Area of the shaded region

$$= \frac{144^\circ}{360^\circ} \times \frac{22}{7} \times 7^2 + \frac{1}{2} \times 7 \times 24 - \frac{1}{4} \times \frac{22}{7} \times 3.5^2$$

$$= 61.6 + 84 - 9.625$$

$$= 135.975$$

$$\approx 136 \text{ cm}^2$$