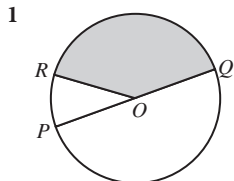


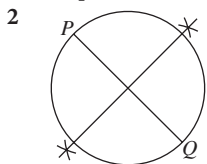
PENYELESAIAN LENGKAP

PRAKTIS 5

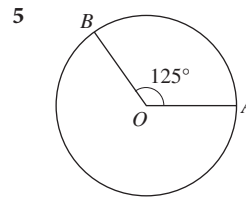
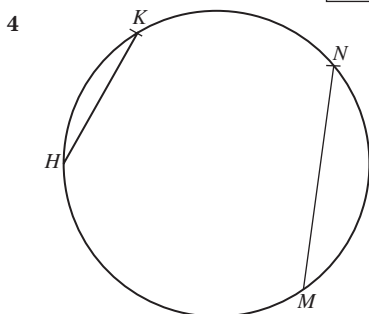
Praktis Formatif



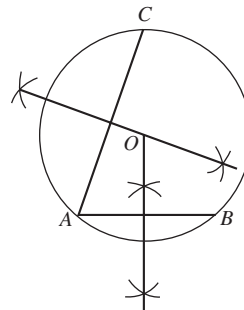
Kawasan berlorek OQR ialah sektor bulatan.
The shaded region OQR is a sector of circle.
 Jawapan/Answer: D



- 3 (a) Perentas Chord — Sebahagian daripada lilitan. *Part of a circumference.*
- (b) Lengkok Arc — Perimeter sebuah bulatan. *Perimeter of a circle.*
- (c) Lilitan Circumference — Rantau yang dibatasi oleh lengkok 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.*



- 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



- 9 (a) $OH^2 = 51^2 - 45^2$
 $= 576$
 $OH = \sqrt{576}$
 $= 24 \text{ cm}$
- (b) Tinggi minyak/Height of oil
 $= 51 \text{ cm} + 24 \text{ cm}$
 $= 75 \text{ cm}$
- 10 Luas bagi kawasan berlorek
Area of the shaded region
 $= \pi(6)^2 - \pi(3)^2$
 $= 36\pi - 9\pi$
 $= 27\pi \text{ cm}^2$
 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

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

$$= 44 \text{ cm}$$

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

$$= 154 \text{ cm}^2$$

$$(b) 220 = 2 \times \frac{22}{7} \times r$$

$$1540 = 44 \times r$$

$$r = 35 \text{ mm}$$

$$\text{Luas/Area} = \frac{22}{7} \times 35^2$$

$$= 3850 \text{ mm}^2$$

$$(c) 13.86 = \frac{22}{7} \times r^2$$

$$97.02 = 22r^2$$

$$r^2 = 4.41$$

$$r = 2.1 \text{ m}$$

$$\text{Lilitan/Circumference} = 2 \times \frac{22}{7} \times 2.1$$

$$= 13.2 \text{ m}$$

13 (a) Lilitan objek/Circumference of object

$$= 2 \times 3.142 \times 1.4$$

$$= 8.8 \text{ cm}$$

(b) Lilitan objek/Circumference of object

$$= 2 \times 3.142 \times 2.1$$

$$= 13.2 \text{ cm}$$

(c) Lilitan objek/Circumference of object

$$= 2 \times 3.142 \times 1.5$$

$$= 9.43 \text{ cm}$$

(d) Lilitan objek/Circumference of object

$$= 2 \times 3.142 \times 20$$

$$= 125.7 \text{ cm}$$

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

$$= 2 \times 3.142 \times 5$$

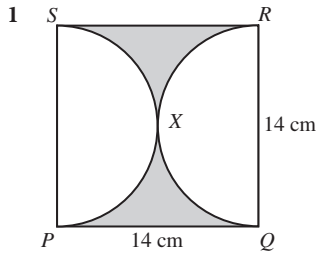
$$= 31.42 \text{ cm}$$

(c) Perimeter bagi rantau berlorek

$$\text{Perimeter of the shaded region} = 20 + 25 + 15 + 31.42$$

$$= 91.42 \text{ cm}$$

Praktis Sumatif



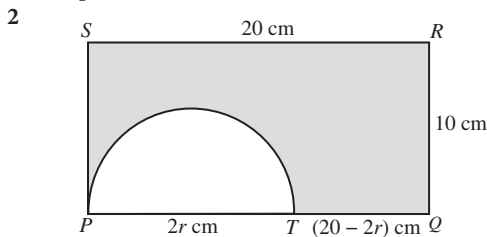
Luas bagi rantau berlorek
Area of the shaded region

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

$$= 196 - 154$$

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

Jawapan/Answer: C



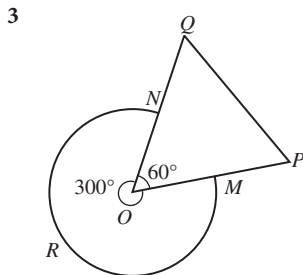
$$\pi r + (20 - 2r) + 10 + 20 + 10 = 68$$

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

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

$$r = 7$$

Jawapan/Answer: C



Sudut refleks 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

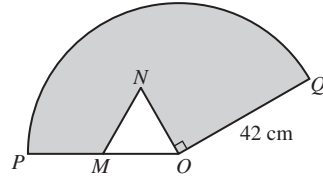
$$= \frac{30^\circ}{360^\circ} \times \pi \times 12^2 + \frac{1}{2} \times \pi \times 3^2$$

$$= 12\pi + 4.5\pi$$

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

Jawapan/Answer: A

6



$$\angle POQ = 60^\circ + 90^\circ$$

$$= 150^\circ$$

Panjang lengkok PQ

Length of arc PQ

$$= \frac{150^\circ}{360^\circ} \times 2 \times \frac{22}{7} \times 42$$

$$= 110 \text{ cm}$$

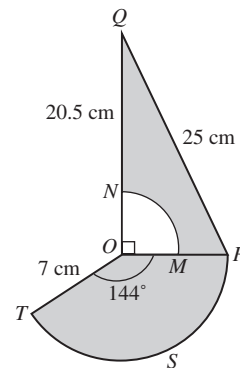
Perimeter bagi rantau berlorek

Perimeter of the shaded region

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

$$= 215 \text{ cm}$$

7



$$OQ^2 = 25^2 - 7^2$$

$$= 576$$

$$OQ = 24 \text{ cm}$$

$$NQ = 24 - 35$$

$$= 20.5 \text{ cm}$$

Luas bagi rantau berlorek

Area of the shaded region

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

$$= 61.6 + 84 - 9.625$$

$$= 135.975$$

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