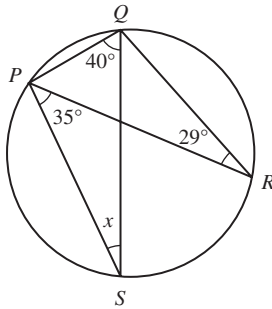


# Penyelesaian Lengkap

## PRAKTIS 6

### Bahagian A

1



$\angle PSQ$  dan  $\angle PRQ$  adalah sudut-sudut pada lilitan bulatan yang dicangkum oleh lengkok yang sama,  $PQ$ .  
 $\angle PSQ$  and  $\angle PRQ$  are angles at the circumference subtended by the same arc  $PQ$ .

$$\therefore \angle PSQ = \angle PRQ$$

$$x = 29^\circ$$

Jawapan/Answer: A

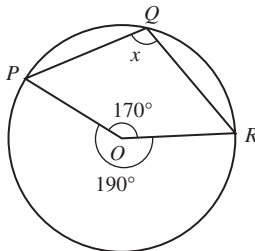
2 Sudut pada pusat bulatan yang dicangkum oleh suatu lengkok yang sama ialah dua kali ganda sudut pada lilitan bulatan.

The angle at the centre of a circle subtended by the same arc is twice the angle at the circumference.

$$x = \frac{1}{2} \times 68^\circ = 34^\circ$$

Jawapan/Answer: B

3



Sudut pada pusat bulatan yang dicangkum oleh suatu lengkok yang sama ialah dua kali ganda sudut pada lilitan bulatan.

The angle at the centre of a circle subtended by the same arc is twice the angle at the circumference.

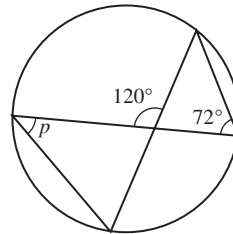
$$x = \frac{1}{2} \times 190^\circ = 95^\circ$$

Jawapan/Answer: C

4  $p + 72 = 120$

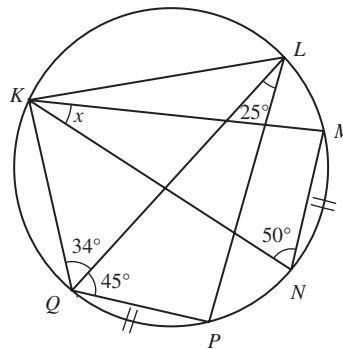
$$p = 120 - 72$$

$$= 48$$



Jawapan/Answer: B

5



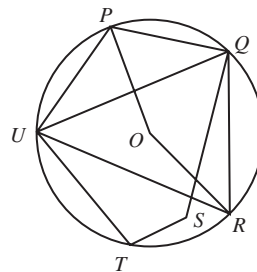
Panjang lengkok  $PQ$  = Panjang lengkok  $MN$

Arc length of  $PQ$  = Arc length of  $MN$

$$x = 25^\circ$$

Jawapan/Answer: A

6



**Sisi empat kitaran** ialah suatu sisi empat dalam bulatan dengan keadaan keempat-empat bucu sisi empat tersebut terletak pada lilitan bulatan

A **cyclic quadrilateral** is a quadrilateral in a circle with its four vertices lie on the circumference of the circle.

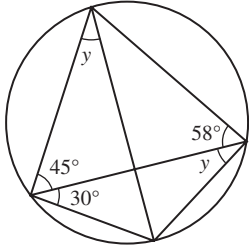
Jawapan/Answer: D

7 Bagi sisi empat kitaran, hasil tambah sudut bertentangan =  $180^\circ$

For a cyclic quadrilateral, the sum of opposite angles =  $180^\circ$

Jawapan/Answer: C

8



$$y + 58 + 45 + 30 = 180$$

$$y + 133 = 180$$

$$y = 180 - 133$$

$$= 47$$

Jawapan/Answer: C

9

$$3p + 2p = 180$$

$$p = 36^\circ$$

$$2q = 180 - 100 = 80^\circ$$

$$q = 40^\circ$$

$$\therefore p + q = 36 + 40 = 76^\circ$$

Jawapan/Answer: B

10

$$x + 102 = 180$$

$$x = 78^\circ$$

$$y = 98^\circ$$

$$\therefore x + y = 78 + 98$$

$$= 176^\circ$$

Jawapan/Answer: A

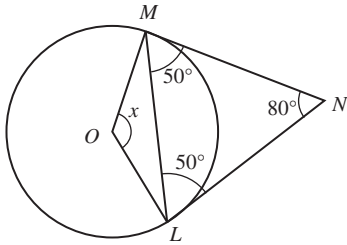
11

Tangen kepada bulatan ialah suatu garis lurus yang menyentuh bulatan tersebut pada satu titik sahaja.

*Tangent to a circle is a straight line that touches the circle at one point.*

Jawapan/Answer: D

12

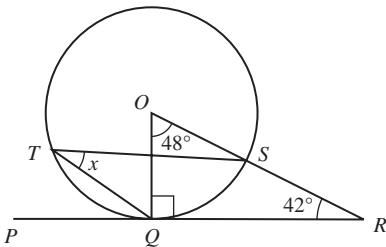


$$x + 80 = 180$$

$$x = 100$$

Jawapan/Answer: B

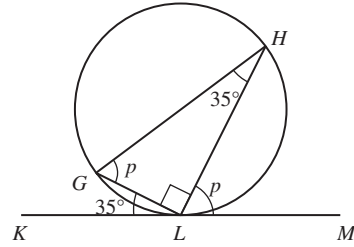
13



$$x = \frac{1}{2} \times 48^\circ = 24^\circ$$

Jawapan/Answer: A

14



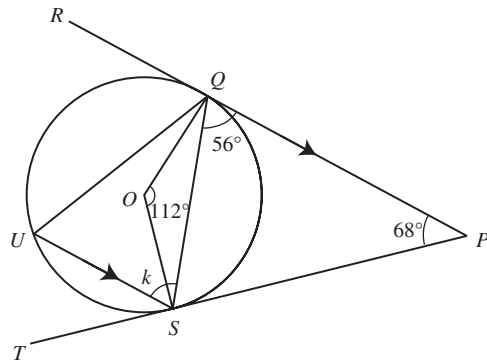
$$p + 35 + 90 = 180$$

$$p + 125 = 180$$

$$p = 55$$

Jawapan/Answer: D

15



$$\angle P + 112^\circ = 180^\circ$$

$$\angle P = 180^\circ - 112^\circ$$

$$= 68^\circ$$

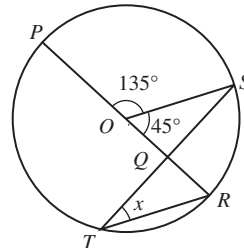
$$\angle SQP = \frac{180 - 68}{2}$$

$$= 56^\circ$$

$$\therefore k = 56^\circ$$

Jawapan/Answer: B

16



$$x = \frac{1}{2} \times 45^\circ = 22.5^\circ$$

Jawapan/Answer: B

17

$$QR = \sqrt{10^2 + 8^2}$$

$$= 12.81 \text{ cm}$$

$$\angle PQL = \angle KQR$$

$$\sin \angle PQL = \sin \angle KQR$$

$$\frac{PL}{PQ} = \frac{PK}{QR}$$

$$\frac{3}{PQ} = \frac{8}{12.81}$$

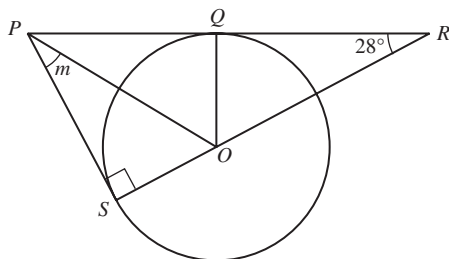
$$8PQ = 3 \times 12.81$$

$$PQ = 4.80 \text{ cm}$$

$$\therefore PR = 12.81 + 4.80 = 17.61 \text{ cm}$$

Jawapan/Answer: D

18



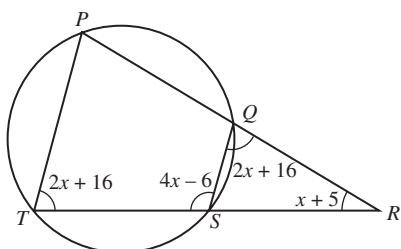
$$\begin{aligned}\angle SPR &= 180 - 90 - 28 \\ &= 52^\circ\end{aligned}$$

$$\angle SPO = \angle QPO$$

$$m = \frac{1}{2} \times 52 = 26^\circ$$

Jawapan/Answer: A

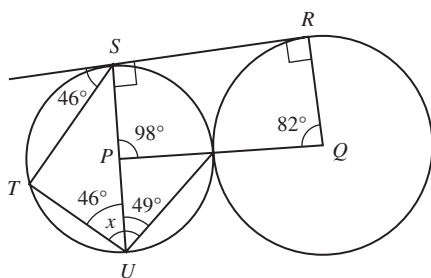
19



$$\begin{aligned}2x + 16 + x + 5 &= 4x - 6 \\ 3x + 21 &= 4x - 6 \\ 21 + 6 &= 4x - 3x \\ x &= 27\end{aligned}$$

Jawapan/Answer: B

20



$$\angle SPQ = 180 - 82 = 98^\circ$$

$$\angle SUM = \frac{1}{2} \times \angle SPQ$$

$$= \frac{1}{2} \times 98$$

$$= 49^\circ$$

$$\angle TUS = 46^\circ$$

$$\therefore x = 49 + 46 = 95^\circ$$

Jawapan/Answer: C

### Bahagian B

1 (a)

$p = q$	$x = y$
✓	✗

(b) (i)  $x = 3 \times 18 \times 3 = 54^\circ$

(ii)  $y = 2 \times 24^\circ = 48^\circ$

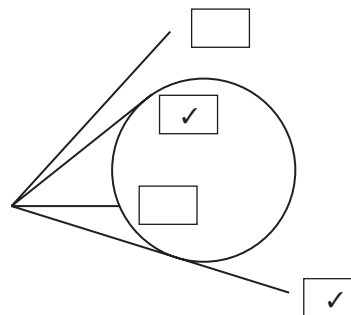
2 (a) (i)  $\angle ACB = 90^\circ$

(ii)  $\angle ABC = 60^\circ$

(b) (i)  $x = q$

(ii)  $y = r$

3 (a)



(b) (i)  $\angle ADE = q$

(ii)  $\angle CDF = r$

### Bahagian C

1 (a)  $x = \angle CBD = \frac{1}{2} \times \angle COD$

$$= \frac{1}{2} \times 38$$

$$= 19^\circ$$

(b)  $p + 42 = 78$

$$p = 36^\circ$$

$$q = p + 45$$

$$= 36 + 45$$

$$= 81^\circ$$

(c) (i)  $x = \frac{1}{2} \times 105 = 52.5^\circ$

(ii)  $y = \frac{1}{2} \times (360 - 105) = 127.5^\circ$

2 (a)  $\angle ABC = 90^\circ$ ,  $x = \frac{1}{2} \times 90 = 45^\circ$

(b) (i)  $\angle FBA = 69^\circ$

$$\angle FBC = 180^\circ - 69^\circ = 111^\circ$$

$$\angle BFD = 180^\circ - 111^\circ - 35^\circ = 34^\circ$$

$$\therefore x = 34^\circ$$

