

Fully-worked Solutions

FORM 1 CHAPTER 8

Summative Practice

Section A

- 1 Reflex angle: $180^\circ < x < 360^\circ$
Answer: C

$$\begin{aligned} 2y + 3y &= 180^\circ \\ 5y &= 180^\circ \\ y &= 36^\circ \end{aligned}$$

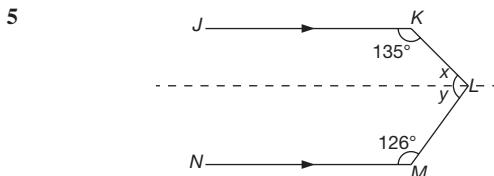
Answer: A

$$\begin{aligned} 3 \quad 86^\circ + 90^\circ + 54^\circ + x + x &= 360^\circ \\ 230^\circ + 2x &= 360^\circ \\ 2x &= 130^\circ \\ x &= 65^\circ \end{aligned}$$

Answer: C

$$\begin{aligned} 4 \quad h + 82^\circ &= 180^\circ \\ h &= 98^\circ \end{aligned}$$

Answer: B



$$\begin{aligned} x &= 180^\circ - 135^\circ \\ &= 45^\circ \\ y &= 180^\circ - 126^\circ \\ &= 54^\circ \\ k &= x + y \\ &= 45^\circ + 54^\circ \\ &= 99^\circ \end{aligned}$$

Answer: A

$$\begin{aligned} 6 \quad 2x + 10^\circ &= x + 28^\circ \\ 2x - x &= 28^\circ - 10^\circ \\ x &= 18^\circ \end{aligned}$$

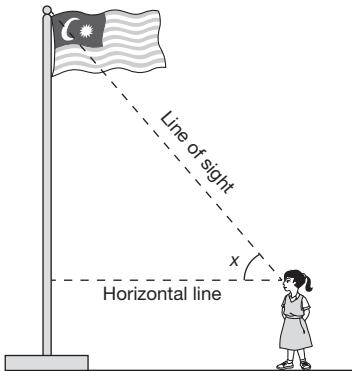
Answer: D

Section B

- 1 (a) ✓ (Vertically opposite angles)
(b) ✗
(c) ✗
(d) ✓ (Supplementary angles)

Section C

- 1 (a)



$$\begin{aligned} (b) \quad p + 57^\circ &= 180^\circ \\ p &= 123^\circ \end{aligned}$$

$$\angle TWY = 57^\circ$$

$$\begin{aligned} \angle TWY + 65^\circ + q &= 180^\circ \\ 57^\circ + 65^\circ + q &= 180^\circ \\ q &= 58^\circ \end{aligned}$$

$$\begin{aligned} p - q &= 123^\circ - 58^\circ \\ &= 65^\circ \end{aligned}$$

- (c)

