

Fully-Worked Solutions

PRACTICE 8

Section A

1 $90^\circ - 35^\circ = 55^\circ$

Answer: D

2 $3x + 4x + 5x = 180^\circ$

$12x = 180^\circ$

$x = 15^\circ$

Answer: A

3 $\frac{5}{6} \times 360^\circ = 300^\circ$

Answer: C

4 $x = 33^\circ + 28^\circ$

$= 61^\circ$

$y = 180^\circ - 33^\circ - 28^\circ$

$= 119^\circ$

$y - x = 119^\circ - 61^\circ$

$= 58^\circ$

Answer: B

5 $x + x + 40^\circ = 180^\circ$

$2x = 140^\circ$

$x = 70^\circ$

$x = 2y$

$y = \frac{70^\circ}{2} = 35^\circ$

Answer: B

6 $x = 180^\circ - 132^\circ = 48^\circ$

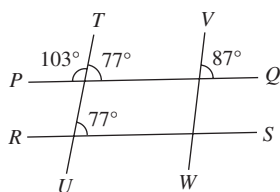
$x = y = 48^\circ$

$x + y = 48^\circ + 48^\circ$

$= 96^\circ$

Answer: D

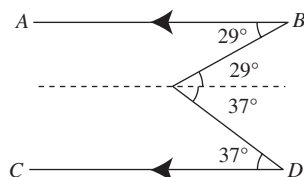
7



$103^\circ + 77^\circ = 180^\circ$

Answer: C

8

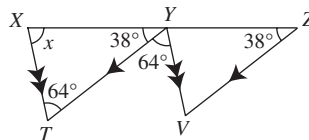


$x = 29^\circ + 37^\circ = 66^\circ$

Answer: D

9 Answer: A

10



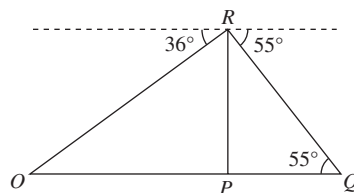
$\angle XTY = \angle TYV = 64^\circ$

$\angle XYT = \angle YZV = 38^\circ$

$x = 180^\circ - 64^\circ - 38^\circ = 78^\circ$

Answer: B

11



$\angle ORQ = 180^\circ - 36^\circ - 55^\circ = 89^\circ$

Answer: B

Section B

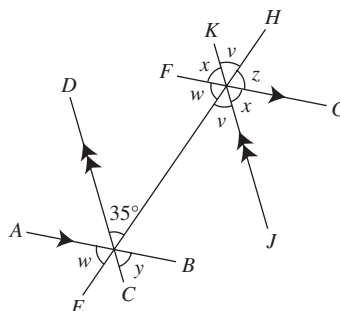
1

60°	80°	130°	45°
100°	150°	20°	135°

2

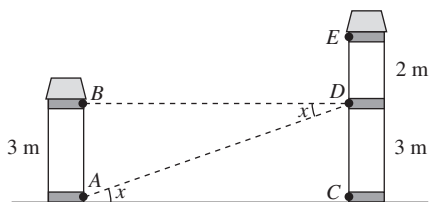
(a)	Angle of one whole turn	180°
(b)	Reflex angle	270°
(c)	Acute angle	360°
(d)	Angle on a straight line	60°

3



- (a) $v + x + w = 180^\circ$ ☒
- (b) $x = w$ ☒
- (c) $v = 35^\circ$ ☒
- (d) $v + x + w + y + z = 360^\circ$ ☒

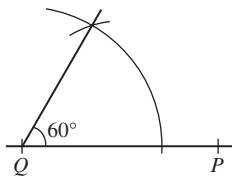
4



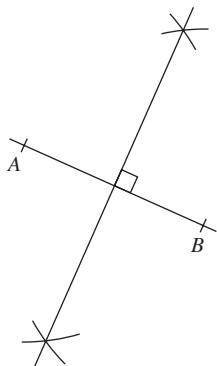
- | | | |
|-----|--|-------|
| (a) | $\angle ADC$ is the angle of depression of A from D. | FALSE |
| (b) | $\angle CAE$ is the angle of elevation of E from A. | TRUE |
| (c) | Line BD is a horizontal line. | TRUE |
| (d) | $\angle BDA = \angle DAC$ | TRUE |

Section C

1 (a) (i)



(ii)

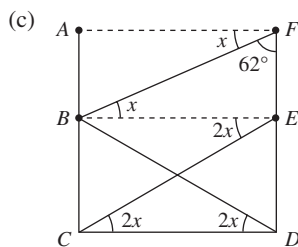
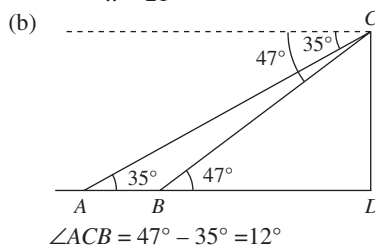


- (b) $x = 180^\circ - 136^\circ = 44^\circ$
 $y = 71^\circ$
 $z = 180^\circ - 44^\circ - 71^\circ = 65^\circ$

- (c) $x = 180^\circ - 66^\circ = 114^\circ$
 $y = 180^\circ - 74^\circ = 106^\circ$
 $z = 74^\circ$

- 2 (a) $x = 29^\circ$
 $y = 180^\circ - 29^\circ - 54^\circ = 97^\circ$
 (b) $3x = x + 60^\circ$
 $2x = 60^\circ$
 $x = 30^\circ$
 (c) $180^\circ - 70^\circ = 110^\circ$
 $y - 18^\circ + y = 110^\circ$
 $2y = 128^\circ$
 $y = 64^\circ$
 (d) $x = 54^\circ$
 $y = 180^\circ - 69^\circ - 54^\circ = 57^\circ$

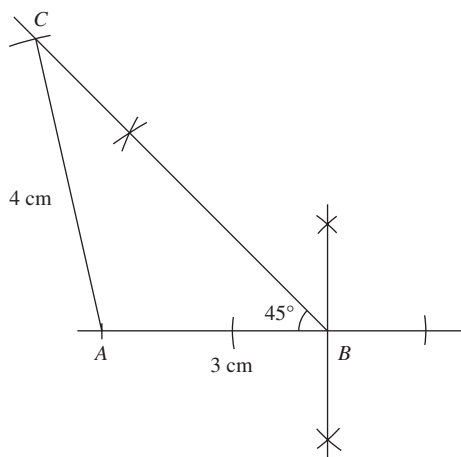
- 3 (a) $x + 37^\circ = 58^\circ$
 $x = 21^\circ$



Angle of depression of B from F
 $= 90^\circ - 62^\circ$
 $= 28^\circ$

Angle of elevation of B from D
 $= 2 \times 28^\circ$
 $= 56^\circ$

(d) (i)



(ii) $\angle ACB = 32^\circ$