

Question 1

- a) T
- b) T
- c) F
- d) F
- e) T

Quiz 2

- a) Obtuse angle
- b) Acute angle
- c) Right angle
- d) $\angle EAD$ and $\angle EAB$
- e) $\angle CFE$ and $\angle EFB$

Quiz 3

- a) $BF = BI$
- b) $\angle AHB = \angle CHB$
- c) $GE = EC$
- d) $\angle AEB = \angle EIH$

Quiz 4

a)

b) BD

c) Yes it is

d) Point D represents 8 on the ruler which starts from 0 to 12

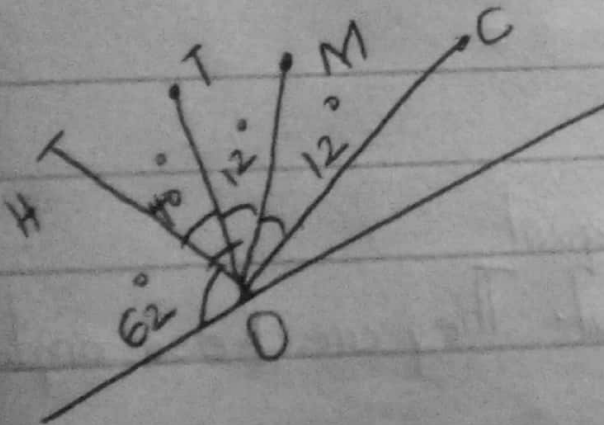
e) DF

f) BD

g) BE

Quiz 5

a)



$$a) \angle HOM = 114^\circ - 62^\circ = 52^\circ$$

$$b) OT = 40 + 62 = 102$$

$$c) \angle TOM = 114^\circ - 102^\circ = 12^\circ$$

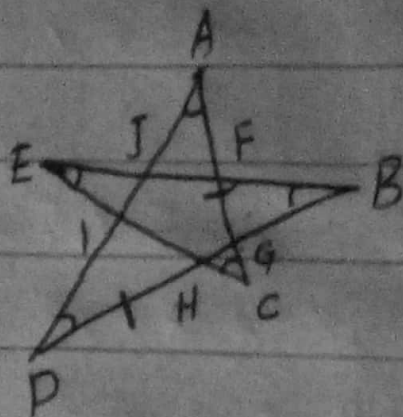
$$d) \angle TOC = 12^\circ \times 2 = 24^\circ$$

$$e) OC = 114 + 12 = 126$$

Quiz 6

- a) N
- b) B
- c) A
- d) E
- e) N
- f) G

Quiz 7



- a) AG and GD are equal
- b) $\angle A$ and $\angle D$ are equal. They are base angles.

Quiz 8

a) $P_1(x_1, y_1) \cdot P_2(x_2, y_2)$

$$d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

Quiz 8

b) AB A(2,0) B(5,4)

$$\begin{aligned} &= \sqrt{(5-2)^2 + (4-0)^2} \\ &= 3^2 + 4^2 \\ &= \sqrt{9+16} \\ &= \sqrt{25} \\ &= 5 \text{ units} \end{aligned}$$

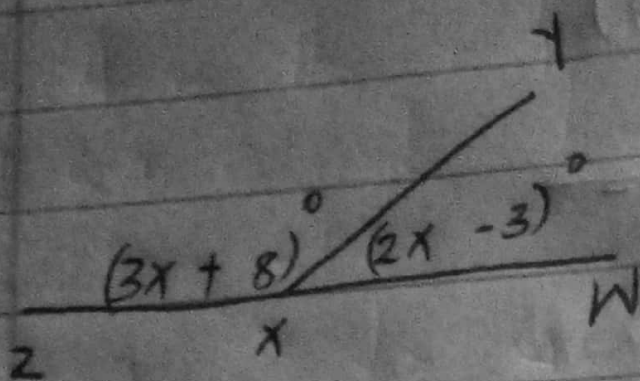
c) BC = B(5,4) C(-3,2)

$$\begin{aligned} &= \sqrt{(5-(-3))^2 + (4-2)^2} \\ &= \sqrt{8^2 + 2^2} \\ &= \sqrt{64+4} \\ &= \sqrt{68} \\ &= 2\sqrt{17} = 8.246 \text{ units} \end{aligned}$$

d) AC = A(2,0) C(-3,2)

$$\begin{aligned} &= \sqrt{(2-(-3))^2 + (0-2)^2} \\ &= \sqrt{25+4} \\ &= \sqrt{29} \\ &= 5.385 \text{ units} \end{aligned}$$

Q.12 9



$$a) (3x + 8)^\circ + (2x - 3)^\circ = 180$$

$$5x + 5 = 180$$

$$5x = 175$$

$$x = 35^\circ$$

$$b) \angle YXZ$$

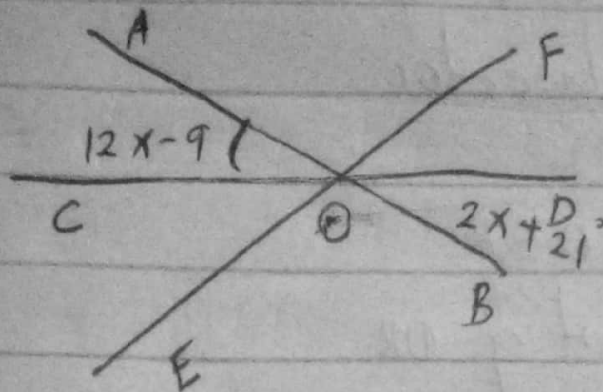
$$3x + 8 = 3(35) + 8 = 113^\circ$$

$$c) \angle YXW = 2x - 3$$

$$= 2(35) - 3$$

$$= 67^\circ$$

Q42 10



$$a) 12x - 9 = 2x + 21$$

$$12x - 2x = 21 + 9$$

$$10x = 30$$

$$x = 3$$

$$b) \angle AOC = 12(3) - 9$$
$$= 27^\circ$$

$$c) \angle DOB = 2x + 21$$
$$= 2(3) + 21$$
$$= 6 + 21$$
$$= 27^\circ$$

$$d) \angle COE = 180 - (27 + 27)$$
$$= 53^\circ$$

Quiz 11

1. A is the midpoint of OR
2. SA is angle bisector
3. $\angle 3 = \angle 4$
4. SA bisects $\angle OSR$
5. A is the midpoint of OR
6. $OA = RA$

Quiz 12

Statements

Reasons

- | | |
|--|-----------------------------|
| 1. C is the midpoint of AD | $AC = CD$ |
| 2. $\angle 1$ and $\angle 2$ are vertical angles | $\angle 1 = \angle 2$ |
| 3. $\angle A = \angle D$ | The angles are transverse |
| 4. $AB = DE$ | C is the midpoint of BE |
| 5. $AB \parallel DE$ | The lines are transverse. |
| 6. $\angle 1 = \angle 2$ | The angles are vertical |
| 7. $\angle C$ and $\angle 2$ are supplementary | The angles are linear |
| 8. $\angle BCD = \angle ACE$ | Vertical angles are equal |
| 9. $AC = CD$ | C is the midpoint of AD |
| 10. $\triangle ABC = \triangle DEC$ | The triangles are congruent |