

Ex - 45

- (a) A ray has only one end point.

(b) A straight line has no end points.

(c) A line segment has two end points.
- (c) line segment has a definite length.
- (a) straight line $AB = \overleftrightarrow{AB}$

(b) Line segment $GH = \overline{GH}$

(c) ray $EF = \overrightarrow{EF}$
- Acute $\rightarrow 21^\circ, 36^\circ, 57^\circ$

Obtuse $\rightarrow 165^\circ, 130^\circ, 170^\circ$

Right $\rightarrow 90^\circ$

5. (a) $\angle AOB = \text{Acute angle}$ $\angle BOY = \text{Acute angle}$
 $\angle AOY = \text{Right angle}$

(i) $(\angle AOY - \angle AOB) = (90^\circ - 42^\circ) = 48^\circ$

$\therefore \angle AOB$ is 48° less than a right angle.

(b) $\angle BOC = \text{Obtuse angle}$ $\angle YOC = \text{Acute angle}$
 $\angle BOY = \text{Right angle}$

(ii) $(\angle BOC - \angle BOY) = (134^\circ - 90^\circ) = 44^\circ$

$\therefore \angle BOC$ is 44° greater than a right angle.

(c) There are 3 angles in figure.

(iii) ~~$\angle POR = 110^\circ = \angle GOR$~~ $\angle POG = 110^\circ$

$\therefore \angle POR = \angle GOR$

$\therefore \angle POR = \frac{\angle POG}{2} = \frac{110^\circ}{2} = 55^\circ$

6. (a) $30^\circ = (90^\circ - 30^\circ) = 60^\circ$

(b) $60^\circ = (90^\circ - 60^\circ) = 30^\circ$

(c) $70^\circ = (90^\circ - 70^\circ) = 20^\circ$

(d) $85^\circ = (90^\circ - 85^\circ) = 5^\circ$

(e) $20^\circ = (90^\circ - 20^\circ) = 70^\circ$

7. (a) $60^\circ = (180^\circ - 60^\circ) = 120^\circ$

(b) $120^\circ = (180^\circ - 120^\circ) = 60^\circ$

(c) $130^\circ = (180^\circ - 130^\circ) = 50^\circ$

(d) $28^\circ = (180^\circ - 28^\circ) = 152^\circ$

(e) $90^\circ = (180^\circ - 90^\circ) = 90^\circ$

8. (b) $76^\circ, 14^\circ$

9. (c) $75^\circ, 105^\circ$

10.

<u>Angles</u>		<u>Complementary angle</u>		<u>Supplementary angle</u>
65°	\longrightarrow	<u>25°</u>	\longrightarrow	<u>115°</u>
<u>37°</u>	\longrightarrow	53°	\longrightarrow	<u>143°</u>
<u>80°</u>	\longrightarrow	<u>10°</u>	\longrightarrow	100°

11. (a) $\angle AOB, \angle BOC$ ~~are~~ are adjacent angles.

(b) $\angle AOD, \angle BOD$ are adjacent angles.

$\angle DOB, \angle COB$ are adjacent angles.

$\angle AOC, \angle BOC$ are adjacent angles.

$\angle COA, \angle DOA$ are adjacent angles.

(c) $\angle AOB, \angle BOC$ are adjacent angles.

$\angle BOC, \angle DOC$ are adjacent angles.

$\angle AOD, \angle COD$ are adjacent angles.