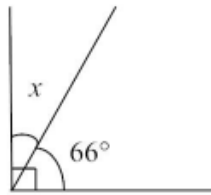
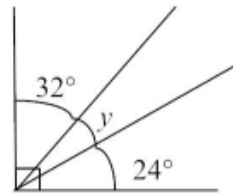




- 1) **Complementary Angles** :- Angles are called complementary if their sum is equal to 90°

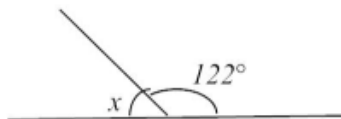


$$x = \underline{\hspace{2cm}}$$

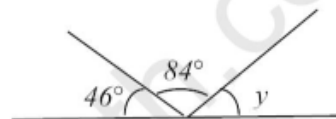


$$y = \underline{\hspace{2cm}}$$

- 2) **Supplementary Angles**:- Angles are called supplementary if their sum is equal to 180°

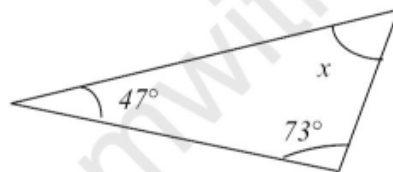


$$x = \underline{\hspace{2cm}}$$



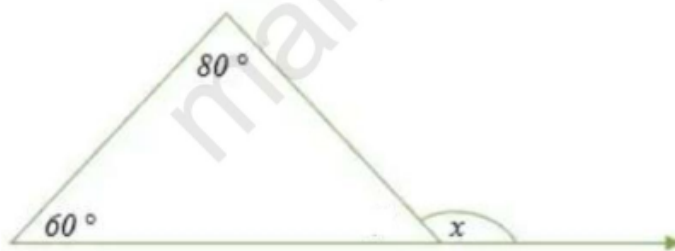
$$y = \underline{\hspace{2cm}}$$

- 3) **Sum of all Angles of a Triangle** = 180°



$$x = \underline{\hspace{2cm}}$$

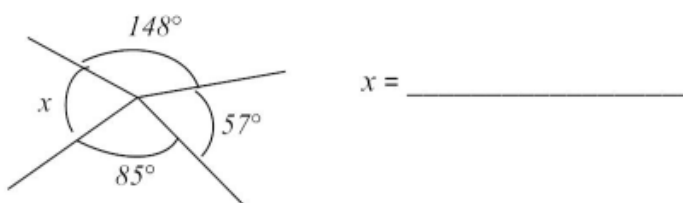
- 4) **Exterior angle of a triangle** is equal to the sum of the two opposite interior angles.



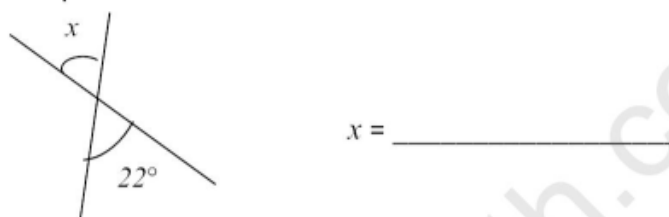
$$x = \underline{\hspace{2cm}}$$



5) Sum of all Angles emerging from a point = 360°



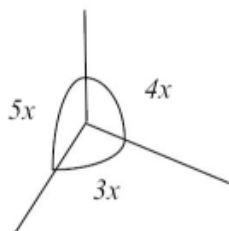
6) **Vertically Opposite Angles** :- Formed when two straight lines intersect each other. These angles are equal.



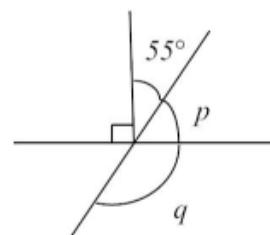
7) Practice Questions

Calculate the unknown angles in each of the following

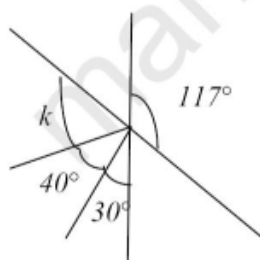
a)



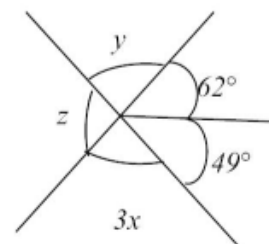
b)



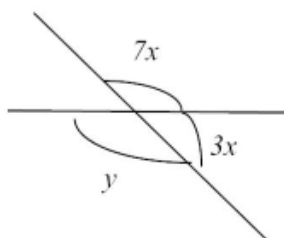
c)



d)

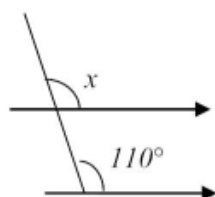


e)

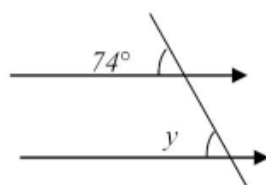




- 8) Corresponding Angles :-** Formed between two parallel lines cut by a transversal (straight line). Corresponding angles are always equal

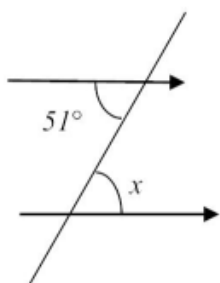


$x = \underline{\hspace{2cm}}$

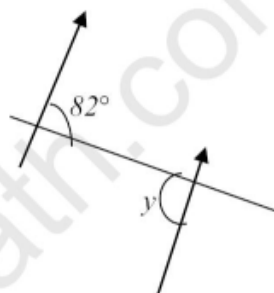


$y = \underline{\hspace{2cm}}$

- 9) Alternate Angles:-** Formed between two parallel lines cut by a transversal (straight line). Corresponding angles are always equal

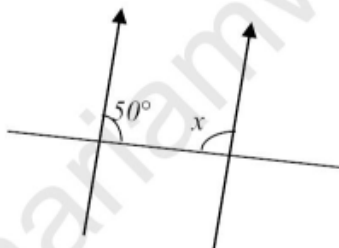


$x = \underline{\hspace{2cm}}$



$y = \underline{\hspace{2cm}}$

- 10) Interior Angles :-** Formed between two parallel lines cut by a transversal (straight line). The sum of the interior angles is equal to 180°

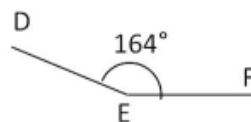
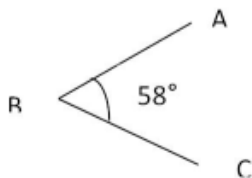


$x = \underline{\hspace{2cm}}$

- 11) Reflex Angle :-** Angle greater than 180°

a) Find Reflex angle ABC

b) Find Reflex angle DEF



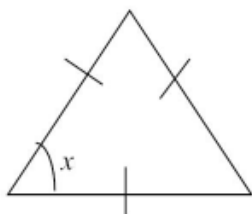


12) Equilateral Triangle:-

Properties:-

All angles = 60°

All sides are equal



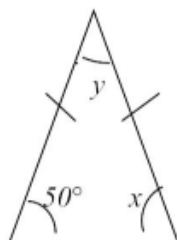
$$x = \underline{\hspace{2cm}}$$

13) Isosceles Triangle:-

Properties:-

_____ sides are equal

_____ angles are equal



$$x = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}}$$



$$z = \underline{\hspace{2cm}}$$

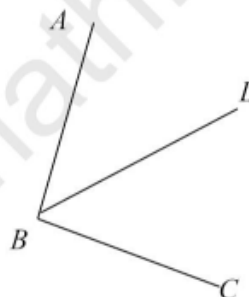
14) Angle Bisector:-

A line that cuts an angle into two equal parts,

Line LB Bisects the angle \hat{ABC} .

If $\hat{ABC} = 110^\circ$,

Find \hat{ABL}



Answers

1) $x = 24^\circ$, $y = 34^\circ$	8) $x = 110^\circ$, $y = 74^\circ$
2) $x = 58^\circ$, $y = 50^\circ$	9) $x = 51^\circ$, $y = 82^\circ$
3) $x = 60^\circ$	10) $x = 130^\circ$
4) 140°	11) reflex $\hat{ABC} = 302^\circ$ reflex $\hat{DEF} = 196^\circ$
5) $x = 70^\circ$	12) $x = 60^\circ$
6) $x = 22^\circ$	13) $x = 50^\circ$, $y = 80^\circ$ $z = 70^\circ$
7) a) $x = 30^\circ$ b) $p = 35^\circ$, $q = 145^\circ$ c) $k = 47^\circ$ d) $x = 23^\circ$, $y = 69^\circ$, $z = 111^\circ$ e) $x = 18^\circ$, $y = 126^\circ$	14) 55°