

Exercises

Let's Recall

A) Write the correct surface for each of the following. Choose your answer from curved surface or plain surface.

- 1) Mango – Curved surface
- 2) Table – Plain surface
- 3) Egg – Curved surface
- 4) Book – Plain surface
- 5) Apple – Curved surface
- 6) Bottle – Curved surface

B) Write two objects for each category.

- 1) curved edge- Banana, Glass
- 2) Straight edge – Table, Book

C) Write names of any four 2 – dimensional shapes.

Ans. Triangle, Square

D) Write the number of faces, edges and vertices for each figure.

(1) Cube

Faces- 6

Vertices -8

Edges- 12

(2) Sphere

Faces -1

Vertices- 0

Edges- 0

(3) Cylinder

Faces- 2

Vertices- 0

Edges-2

(4) Cone

Faces- 2

Vertices- 0

Edges- 1

(5) Cuboid

Faces- 6

Vertices- 8

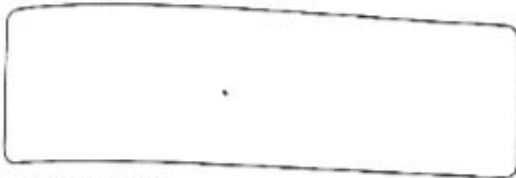
Edges- 12

What Did You Learn?

Exercise 12.1

A) Draw and name the following:

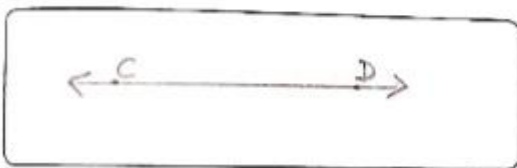
1) a point



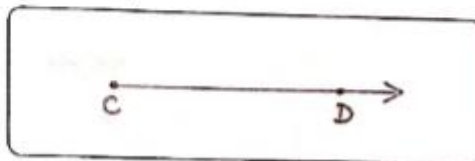
2) a line segment



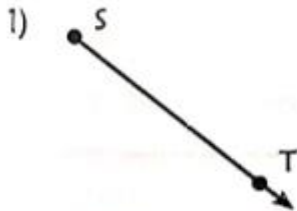
3) a line



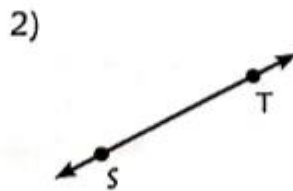
4) a ray



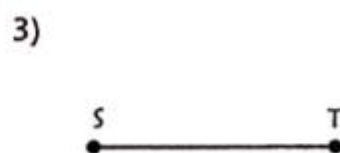
B) Which of the following is a line, ray or a line segment?



Ray



Line

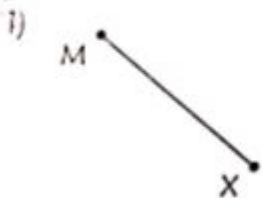


Segment

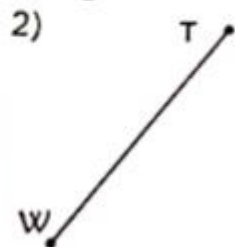
What Did You Learn?

Exercise 12.2

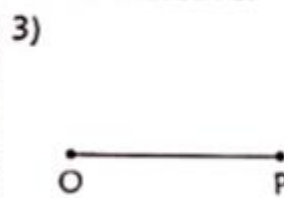
A) Measure each line segment and write its measure.



$\overline{MX} = 3$ cm



$\overline{TW} = 4$ cm



$\overline{OP} = 3$ cm



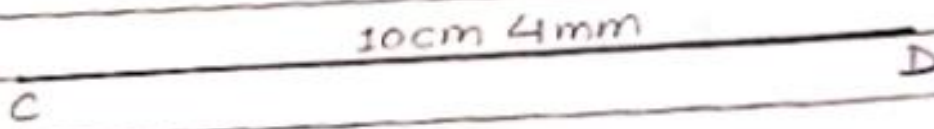
$\overline{HS} = 3.5$ cm

(B) Draw line segments of the following lengths and name them.

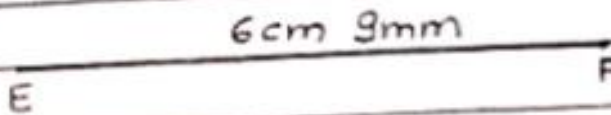
(1) 8cm



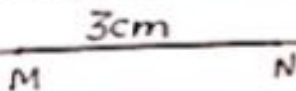
(2) 10 cm 4mm



(3) 6 cm 9mm



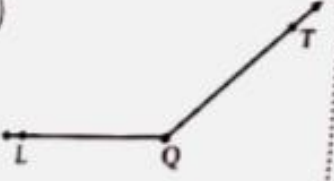
(4) 3cm



What Did You Learn?

Exercise 12.3

A) Name each of the following angles in two ways.

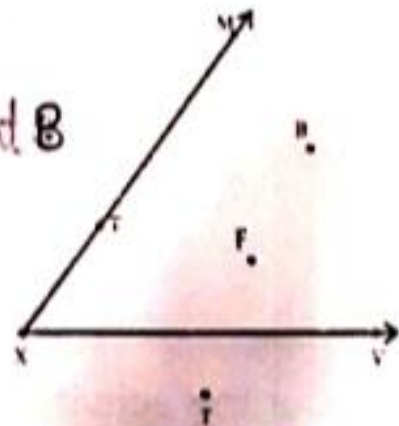
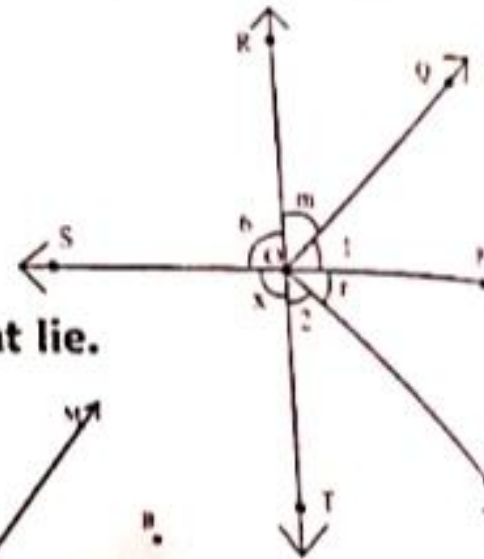
- | | | | |
|--|--|---|--|
| 1)  | 2)  | 3)  | 4)  |
| 1) <u>$\angle TQL$</u> | 1) <u>$\angle RST$</u> | 1) <u>$\angle ETP$</u> | 1) <u>$\angle CQM$</u> |
| 2) <u>$\angle LQT$</u> | 2) <u>$\angle ISR$</u> | 2) <u>$\angle PTE$</u> | 2) <u>$\angle MQC$</u> |

B) Name each of the angles in the adjoining figure using three letters.

- | | |
|---|---|
| 1) $\angle 1$: <u>QOP</u> | 2) $\angle m$: <u>QOR</u> |
| 3) $\angle 6$: <u>ROS</u> | 4) $\angle x$: <u>SOT</u> |
| 5) $\angle 2$: <u>Tou</u> | 6) $\angle r$: <u>POU</u> |

C) In the adjoining figure name all the points that lie.

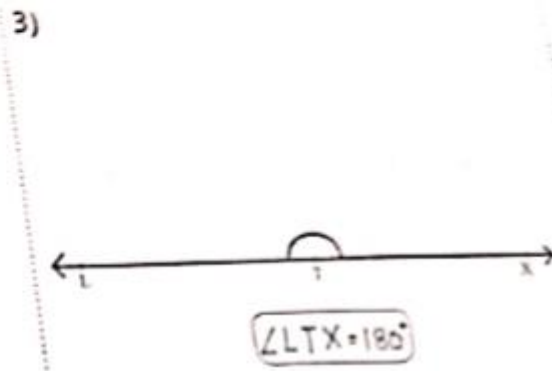
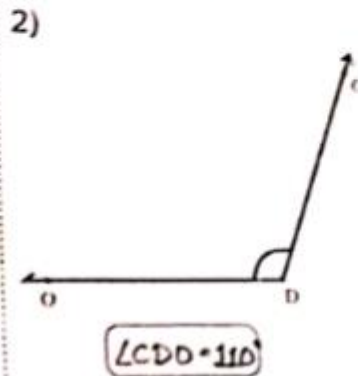
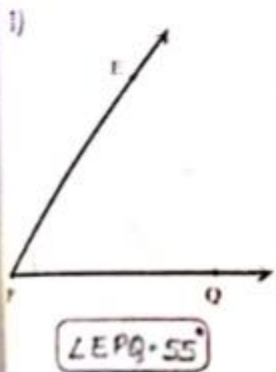
- In the exterior of $\angle MXV$: Point Q and T
- In the interior of $\angle MXV$: Point F and Point B
- On $\angle MXV$: Point M, Point X, Point T, and Point V.



What Did You Learn?

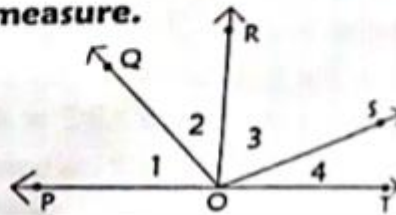
Exercise 12.4

A) Measure the following angles and write their measurements.



B) Use a protractor to measure each angle in the adjoining figure. In your notebook, write its name and measure.

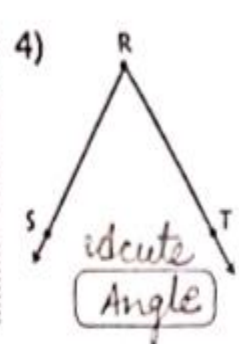
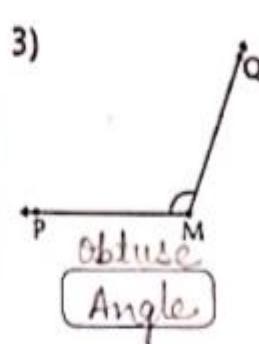
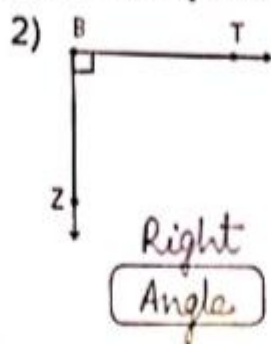
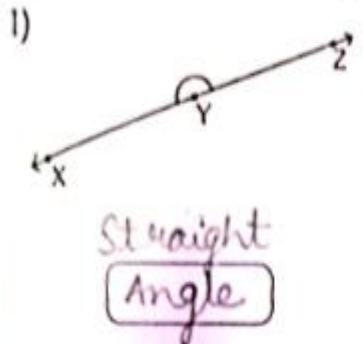
$\angle QOP = 55^\circ$, $\angle QOR = 40^\circ$,
 $\angle ROS = 70^\circ$, $\angle SOT = 20^\circ$



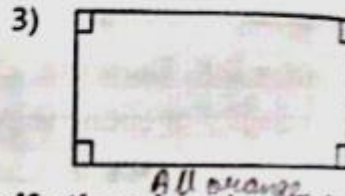
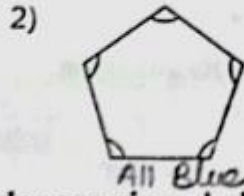
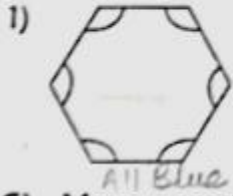
What Did You Learn?

Exercise 12.5

A) Measure the angles and classify them.



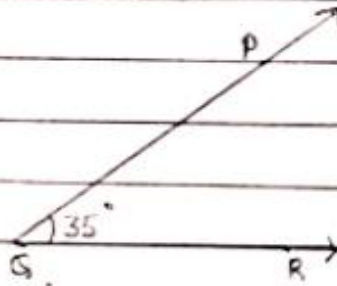
B) Write each angle in the figure given below using the colour code.
Acute angle – Red, Obtuse angle – Blue, Right angle – Orange.



C) Measures of a few angles are given below. Classify them based on their

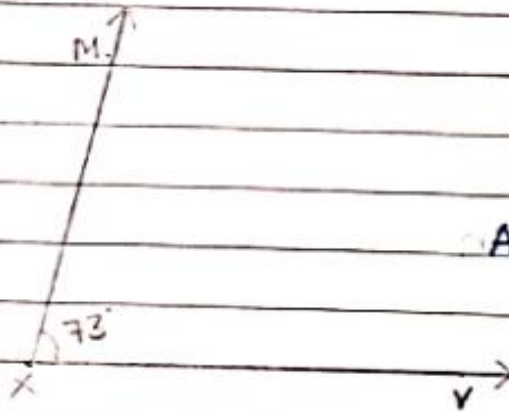
(c) Measures of a few angles are given below. Classify them based on their measurements

(1) 35°



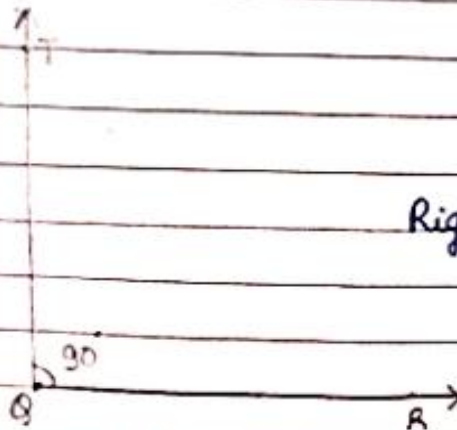
Acute Angle

(2) 73°

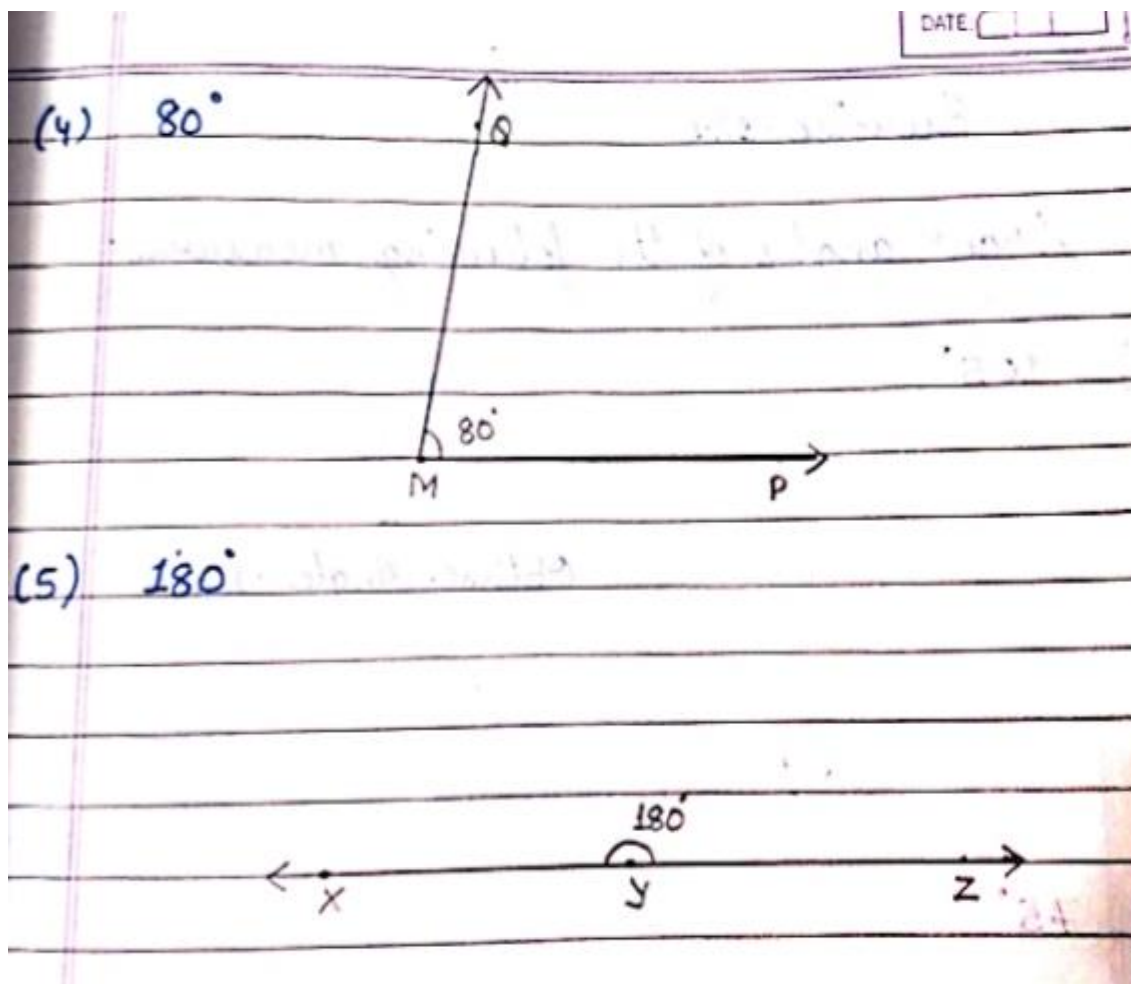


Acute Angle

(3) 90°



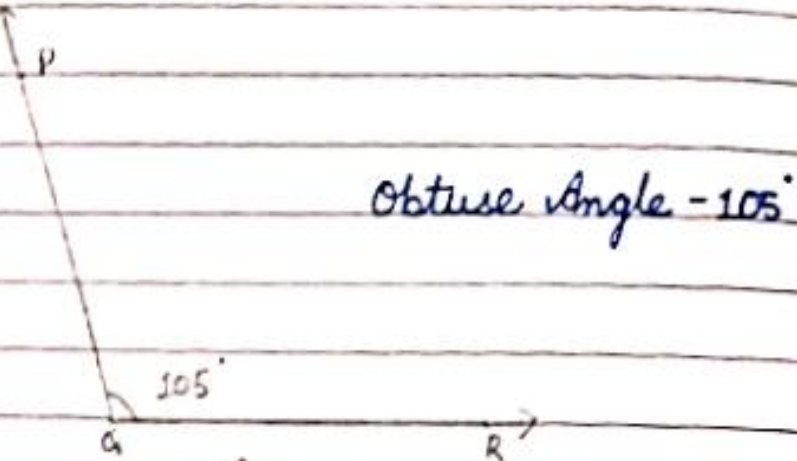
Right Angle



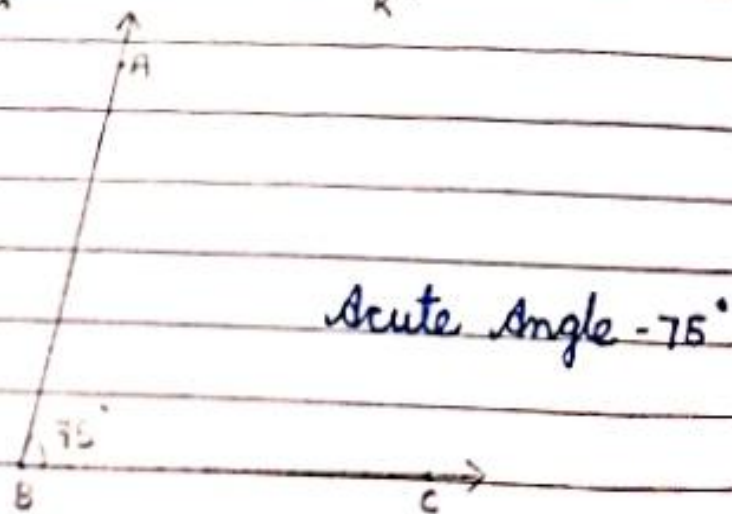
Exercise - 12.6

Draw angles of the following measures:

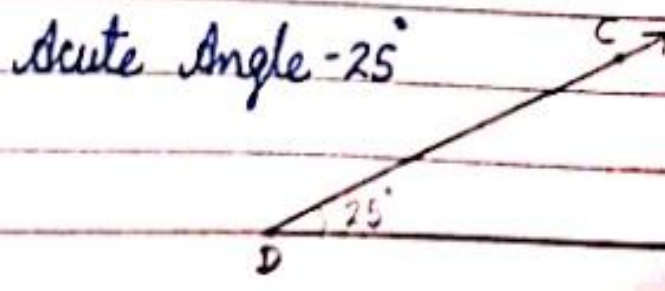
(1) 105°



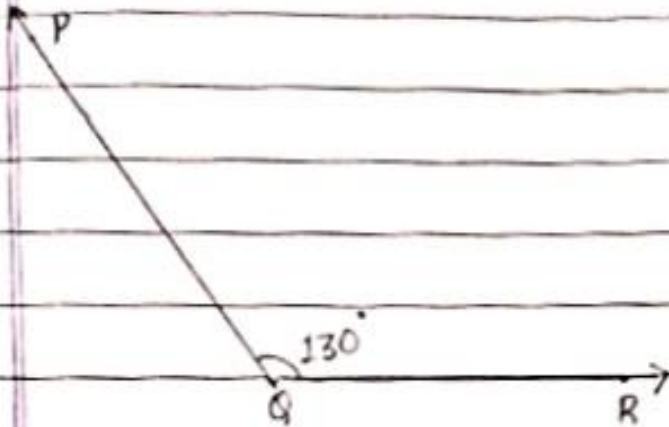
(2) 75°



3) 25°

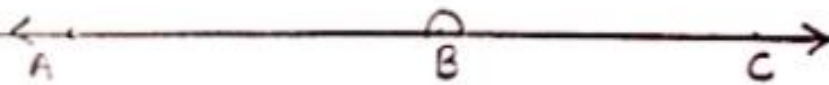


(4) 130°



Obtuse Angle - 130°

(5) 180°



Straight Angle - 180°

Exercise 12.7

A) What is the shape of your Math coursebook? Rectangle

Is it a quadrilateral? Yes

B) Trace the shape of a sharpener. Is it a polygon? Yes

If yes, name it. Rectangle

C) Fill in the blanks with the correct answer.

1) Every quadrilateral is a Polygon.

2) Every Polygon may not be a quadrilateral.

3) A polygon with three line segments is called a Triangle.

4) A quadrilateral with all four sides of equal length is called a square.

5) A Rectangle is a quadrilateral whose opposite sides are equal.

Exercise 12.8

A) Fill in the blanks.

1) The length of the boundary of a circle is called its Circumference.

2) The Diameter is the longest chord of the circle.

3) The point where two diameters intersect each other is called the centre of the circle.

4) Any portion of the circumference of a circle is called an arc.

5) The diameter divides the circle into two equal parts.

6) The distance between centre of the circle and a point on the circle is the Radius of the circle.

Exercise.12.9

A) Write the correct answer.

1) Circle

(2) Wheel

(3) Pizza

Diameter = 14 cm

Diameter = 58 cm

Radius = 16 cm

Radius = 7 cm

Radius = 29 cm

Diameter = 32 cm

B) Write true or False. Correct the false statements.

1) All radii of the same circle are of different length. False

2) Radius is twice the length of the diameter. False

3) A circle has one and only one diameter. False

4) A diameter passes through the centre of the circle. True

C) Find the radius of a circle whose diameter is :

(1) 7 cm

(2) 53 cm

(3) 16 cm

(4) 80 cm

$$R = D \div 2$$

$$r = D \div 2$$

$$r = D \div 2$$

$$r = D \div 2$$

$$R = 7 \div 2$$

$$r = 53 \div 2$$

$$r = 16 \div 2$$

$$r = 80 \div 2$$

$$R = 3.5 \text{ cm}$$

$$r = 26.5 \text{ cm}$$

$$r = 8 \text{ cm}$$

$$r = 40 \text{ cm}$$

D) Find the diameter of a circle whose radius is:

(1) 9 cm

(2) 12 m

(3) 100 cm

(4) 13m

$$D = 2 \times r$$

$$D = 2 \times r$$

$$D = 2 \times r$$

$$D = 2 \times r$$

$$D = 9 \times 2$$

$$D = 2 \times 12$$

$$D = 2 \times 100$$

$$D = 2 \times 13$$

$$D = 18 \text{ cm}$$

$$D = 24 \text{ m}$$

$$D = 200 \text{ cm}$$

$$D = 26 \text{ m}$$

F) Look at the picture and write the correct answer.

(1) Line MN is a Diameter.

(2) Line PQ is a arc.

(3) O is called the Centre.

