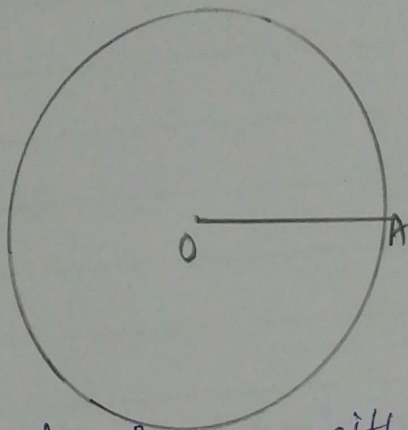


Enrichment Activity

Check Point :-

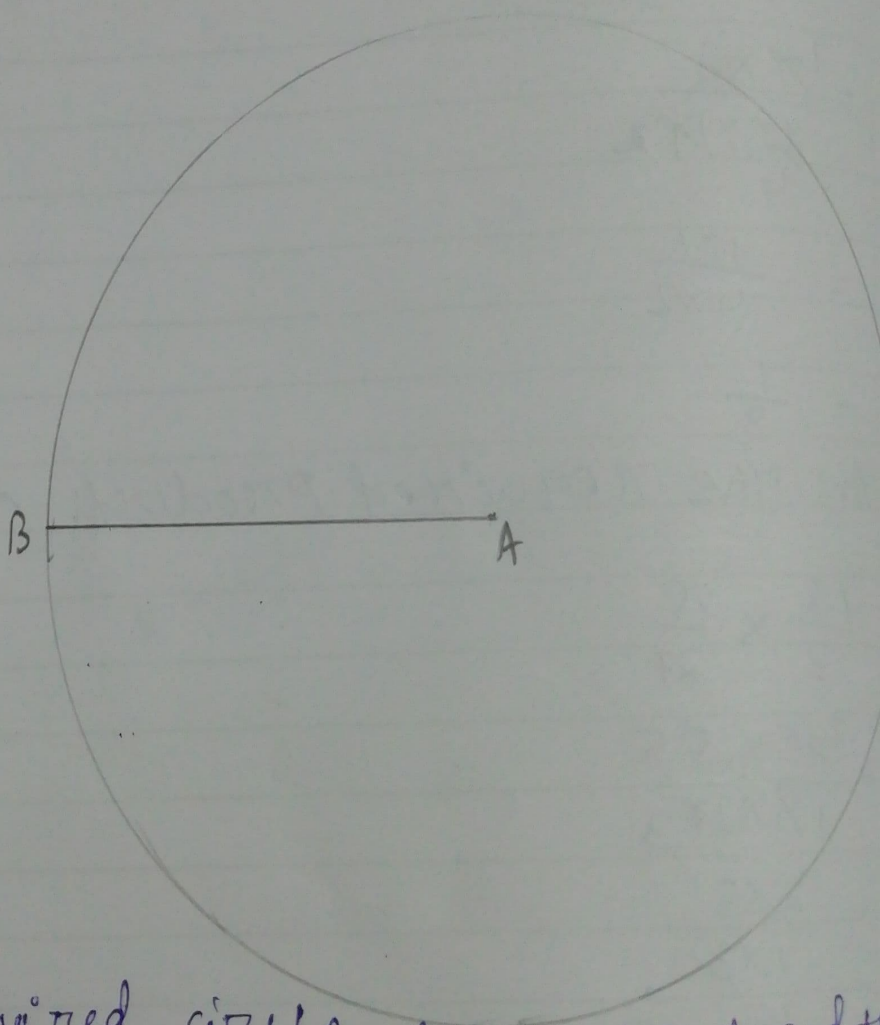
Use a compass to draw circles of radii,

1. $2\frac{1}{2}$ cm.



It is the required circle with centre O and radius $\overline{OA} = 2\frac{1}{2}$ cm

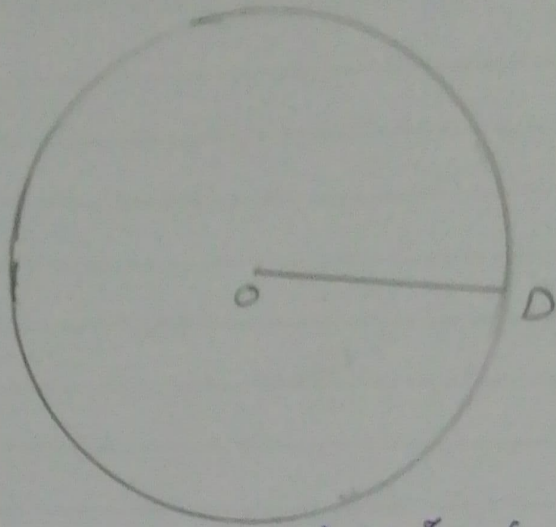
2. 6 cm



It is the required circle with centre A and radius $\overline{AB} = 6$ cm.

Ex- 7.3

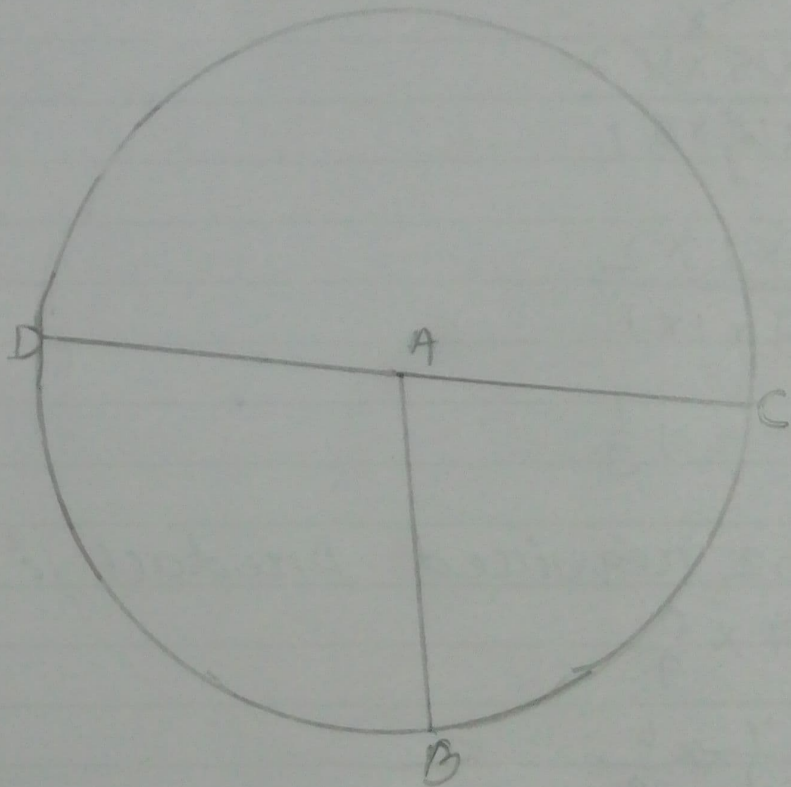
Given length of radius = 3cm



It is the required circle of centre o and radius $\overline{OD} = 3\text{cm}$.

Given length of diameter = 9cm

So length of radius = $\frac{9}{2}\text{cm} = 4\frac{1}{2}\text{cm}$



It is the required circle of diameter 9cm
 \overline{AB} = radius and \overline{CD} is diameter.

EXERCISE 7.3

A. In the circle name the

1. centre
2. a radius
3. a diameter
4. points in the interior
5. points on the circle

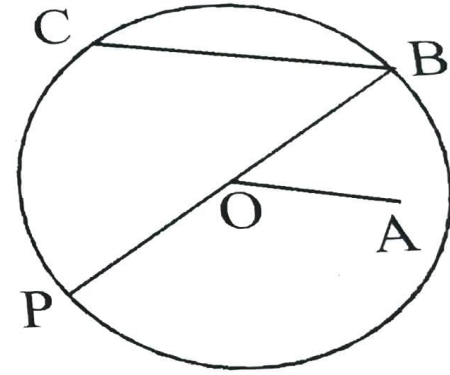
Point O

\overline{OB}

\overline{BP}

Points O, A

Points P, B, C



Colour it if you
get all your
sums right.

B. Write **T** for True or **F** for False.

1. A circle is a polygon.
2. A polygon is a simple closed curve.

F

F

3. A triangle is a polygon made of 3 line segments.

4. All radii of a circle are equal.

5. The diameter is half of the radius.

T
T
F

3. Draw a circle of radius 3 cm. Name its centre O and radius OD.

4. Draw a circle of diameter 9 cm. Name its centre A, diameter CD and radius AB.

POINTS TO REMEMBER

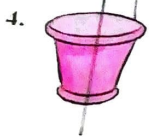
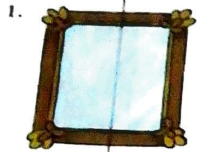
- ▶ A point shows an exact location. It is represented by a dot (.) and named with a capital letter.
- ▶ A segment is a straight path between two points. It is the shortest distance between two points.
- ▶ A line goes on indefinitely in both the directions. It has no fixed length and cannot be measured.
- ▶ A ray has a starting point (initial point) and goes on indefinitely in one direction. It has no fixed length.
- ▶ A shape or a figure that begins and ends at two different points is called an open shape.
- ▶ A shape or a figure that begins and ends at the same point is called a closed shape.



SHAPES and PATTERNS

WARM UP

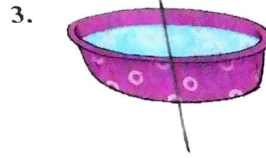
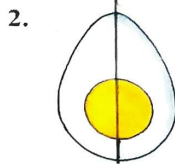
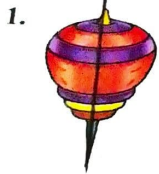
A. Tick (✓) the objects that are symmetrical.



Symmetrical figures can be divided into two parts of equal shape and size.

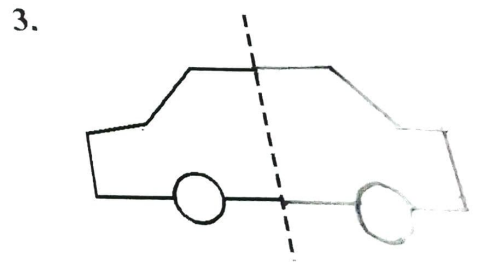
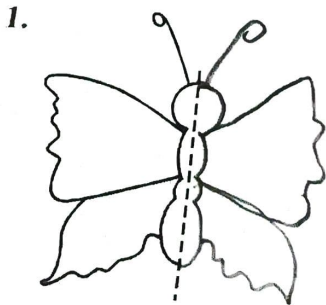


B. Draw the line of symmetry.



The line which divides a figure into two mirror halves is called the line of symmetry.

C. Draw the mirror image and colour it.



REFLECTIONS

Look at Figure A and B.

We say that after flipping Pictures A and B are

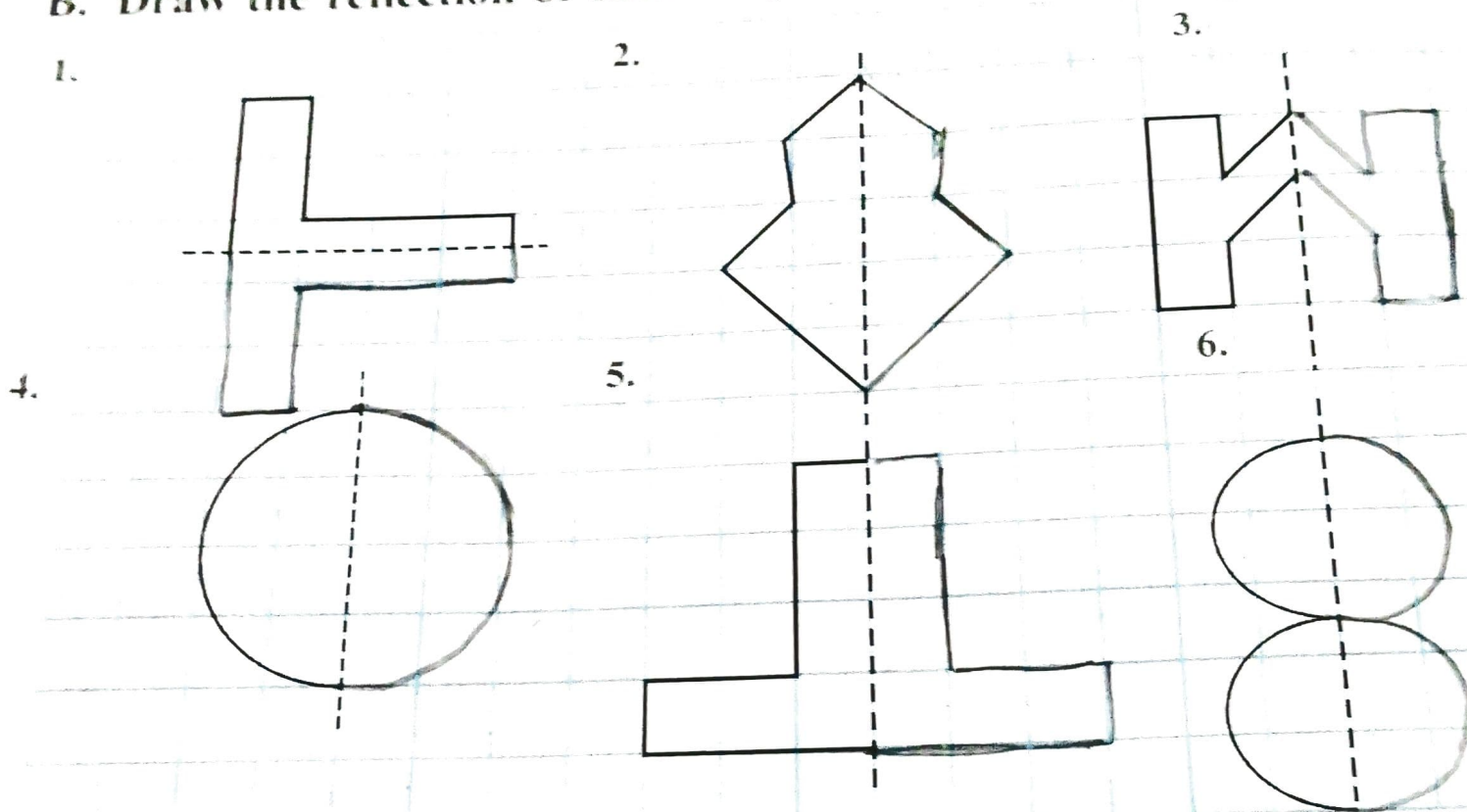
LEARNING BY DOING

- ▶ Take a sheet of paper
- ▶ Write IX on it
- ▶ Look at the reflection

EXERCISES

- A. Tick (✓) the objects that are symmetrical.
- 1.

B. Draw the reflection of each shape.



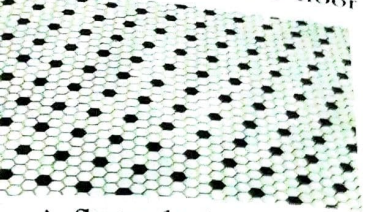
PATTERNS

We see patterns not only on clothes but everywhere in nature. Look at the beautiful kites. They also follow a pattern.



g patterns

Look around you at the floor and the walls



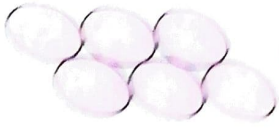
A floor design



A wall design

These designs are made by tiles that fit into each other without any gaps or overlapping. These tiling patterns are called tessellations.

This is a salating shape.

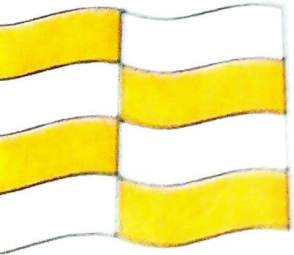


This is a tessellating shape.

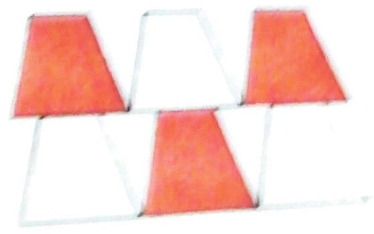


EXISE 8.2

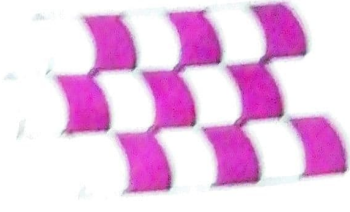
Tick (✓) the patterns that tessellate.



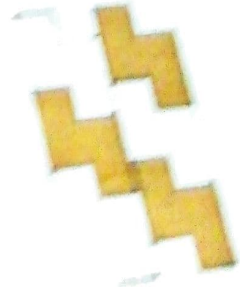
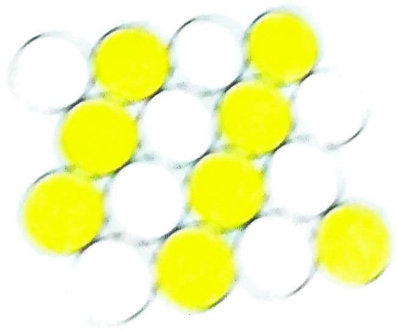
2.



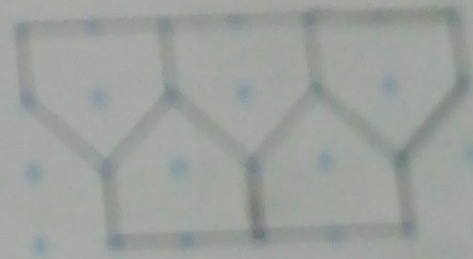
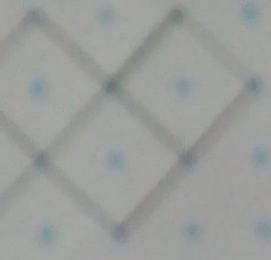
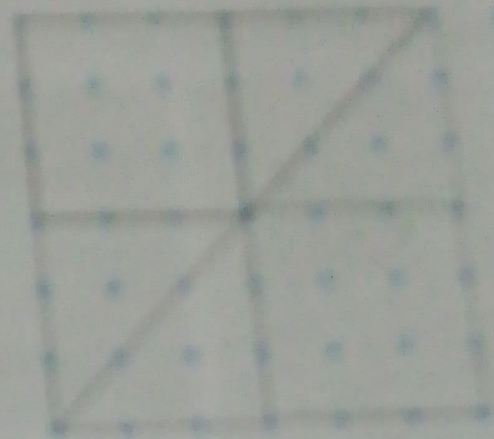
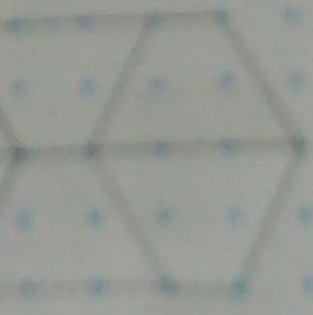
3.



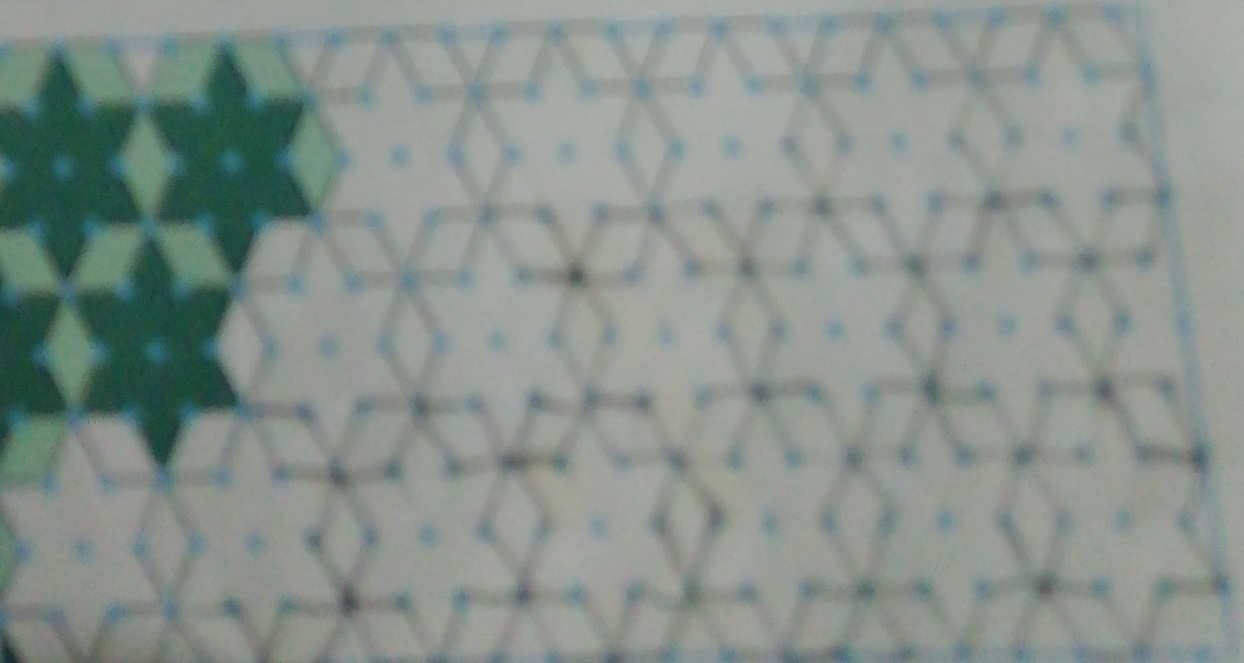
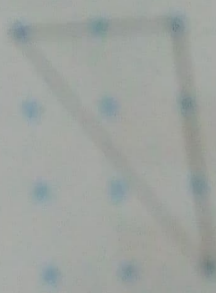
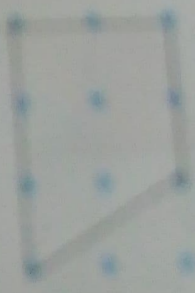
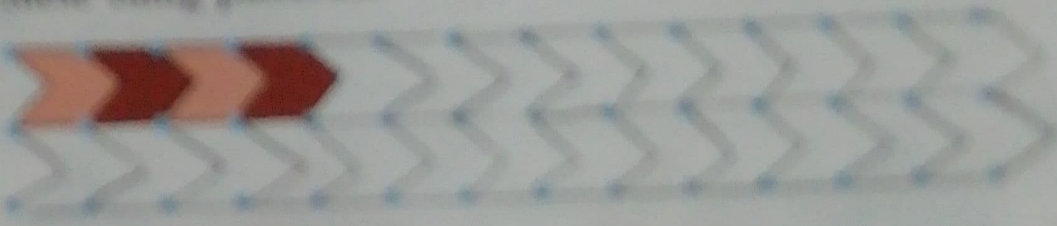
4.



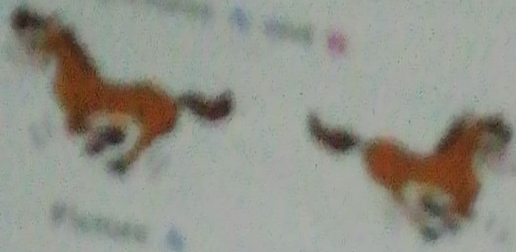
Patterns grow by drawing the given shape.



Draw these tiling patterns.



Cutting out the
shape
and follow the
lines
to make
the pattern



Picture A

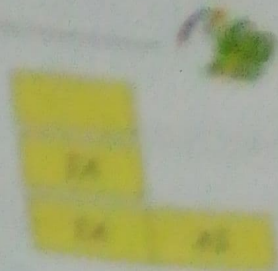
Picture B

We say that after flipping, Picture A becomes Picture B.
 Pictures A and B are mirror images or reflections of each other.

LEARNING BY DOING

- Take a sheet of paper.
- Write IX on it.
- Look at it in the mirror. What do you see?

try with it



EXERCISE 8.1

A. Tick (✓) the figures that are reflections or mirror images of each other.

