First Term Evaluation 2019-20

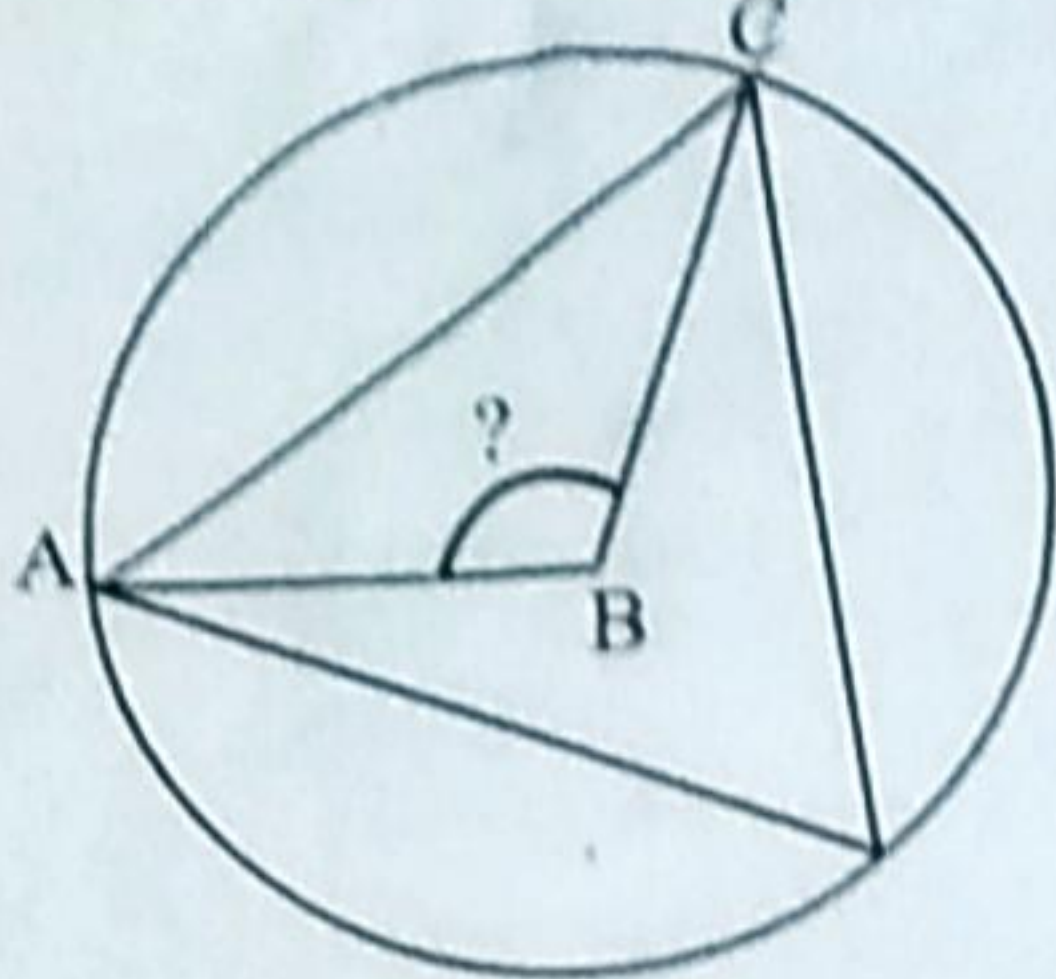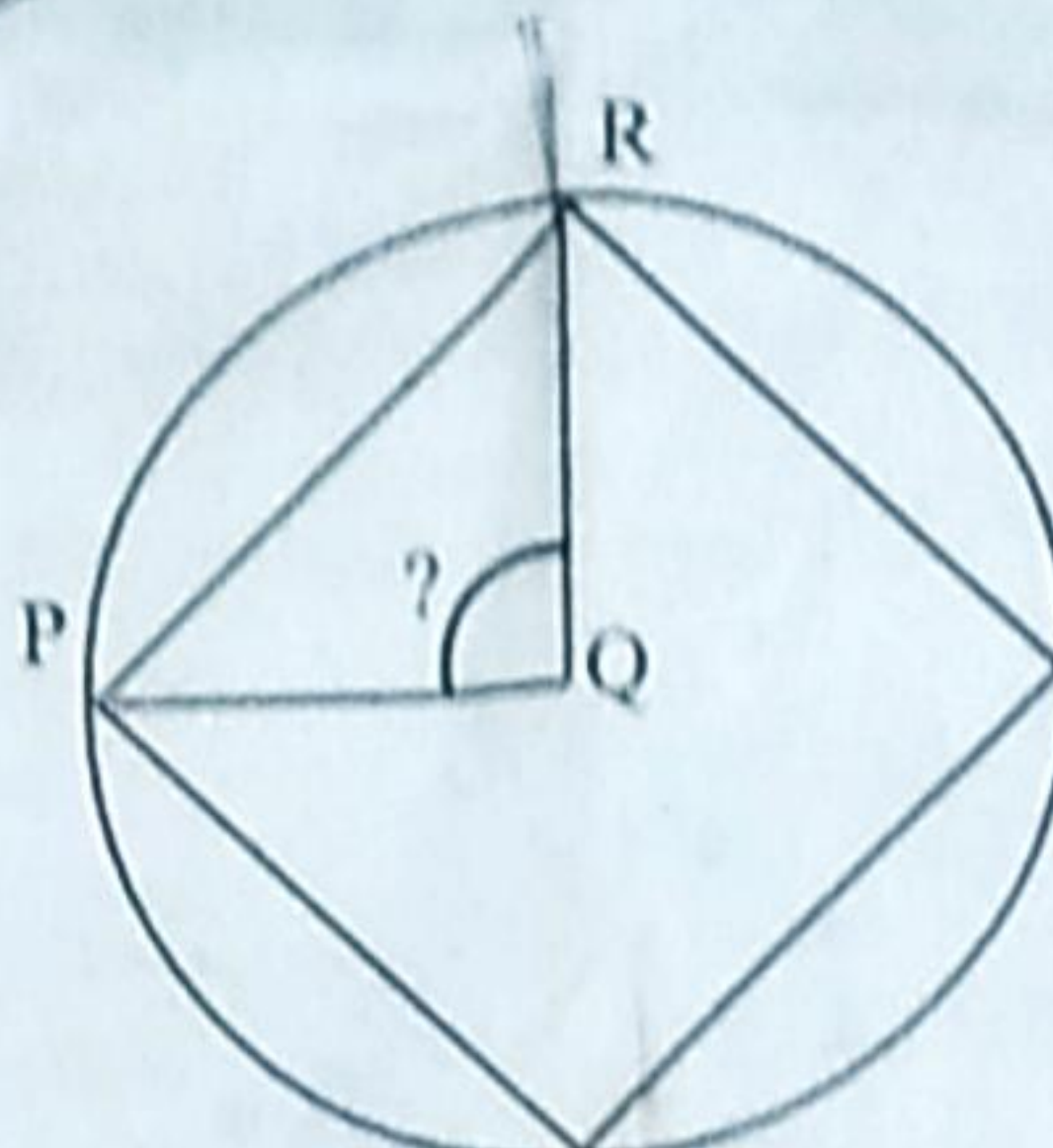**Class : 6**   Mathematics   Time : 2 hours

Instructions

1. 15 minutes cool-off time is allotted for reading and understanding the activities.
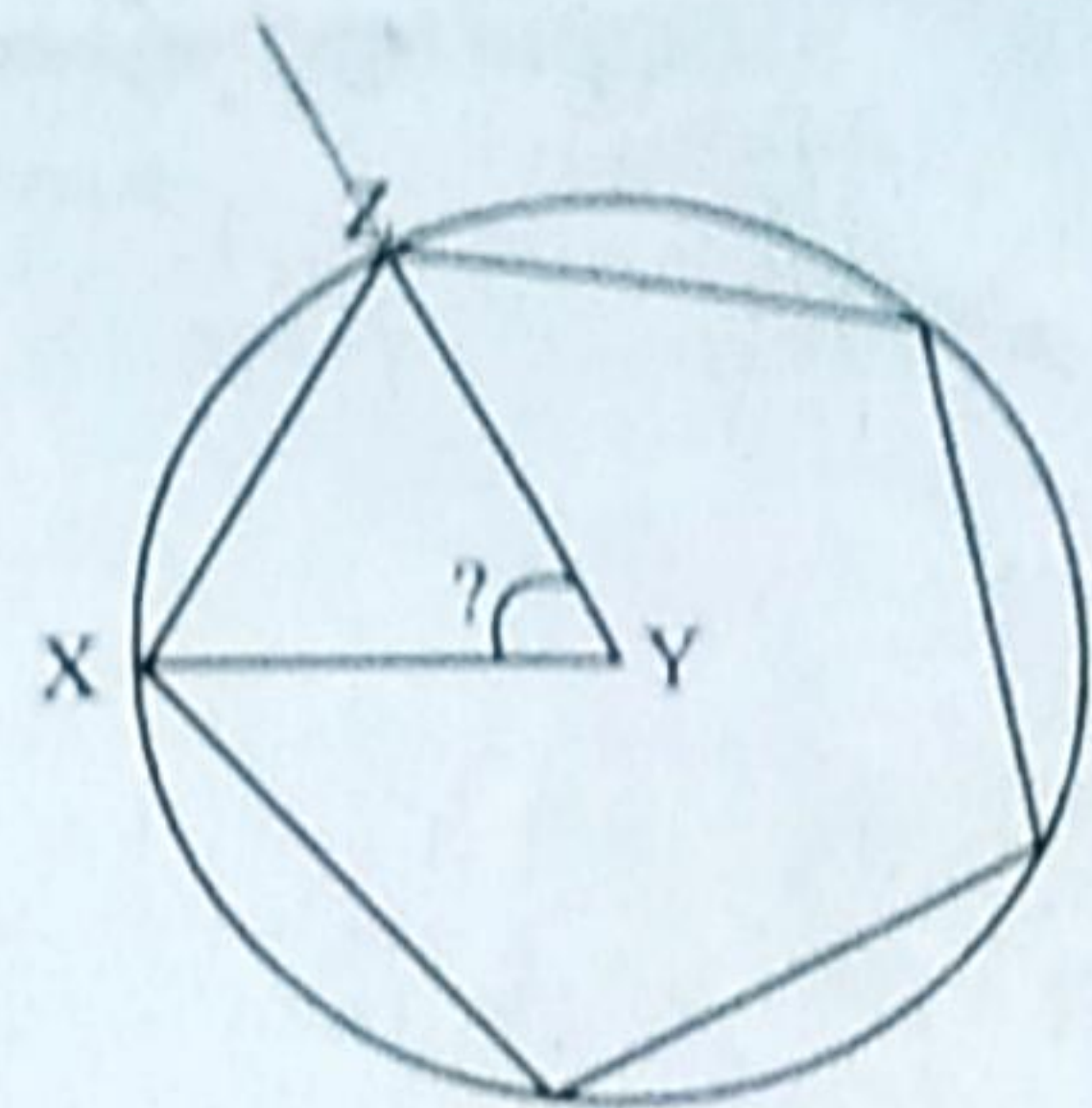2. Answer any **6** of the **8** activities given.

Activity 1 - Angle in a Circle

Picture - 1   Picture - 2   Picture - 3

Examine the pictures. B, Q, Y are the centres of the circles. The triangle, the square and the pentagon inside the circles are formed by dividing the circle into equal parts and joining the points. Based on the above pictures, answer the following questions.

a) Find the measure of $\angle$ XYZ.

b) Which figure has right angle?

c) Draw the next picture according to the above three and write the measure of the angle (Divide a circle of 3 cm radius into 6 equal parts).
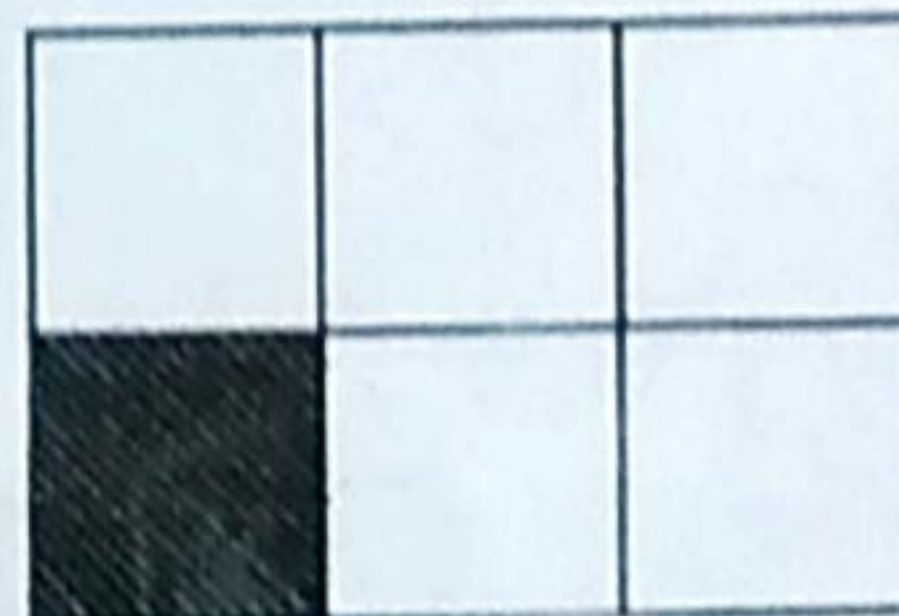
Activity 2 - Divide the Rectangle

Two rectangles of the same size are equally divided in two different ways as shown below.

Rectangle - 1   Rectangle - 2

a) What is the fraction of the shaded portion in Rectangle-1?

b) What is the fraction of the shaded portion in Rectangle-2?

c) Write the relation between the shaded portions of the two rectangles.

d) Write this relation using numbers and symbols.

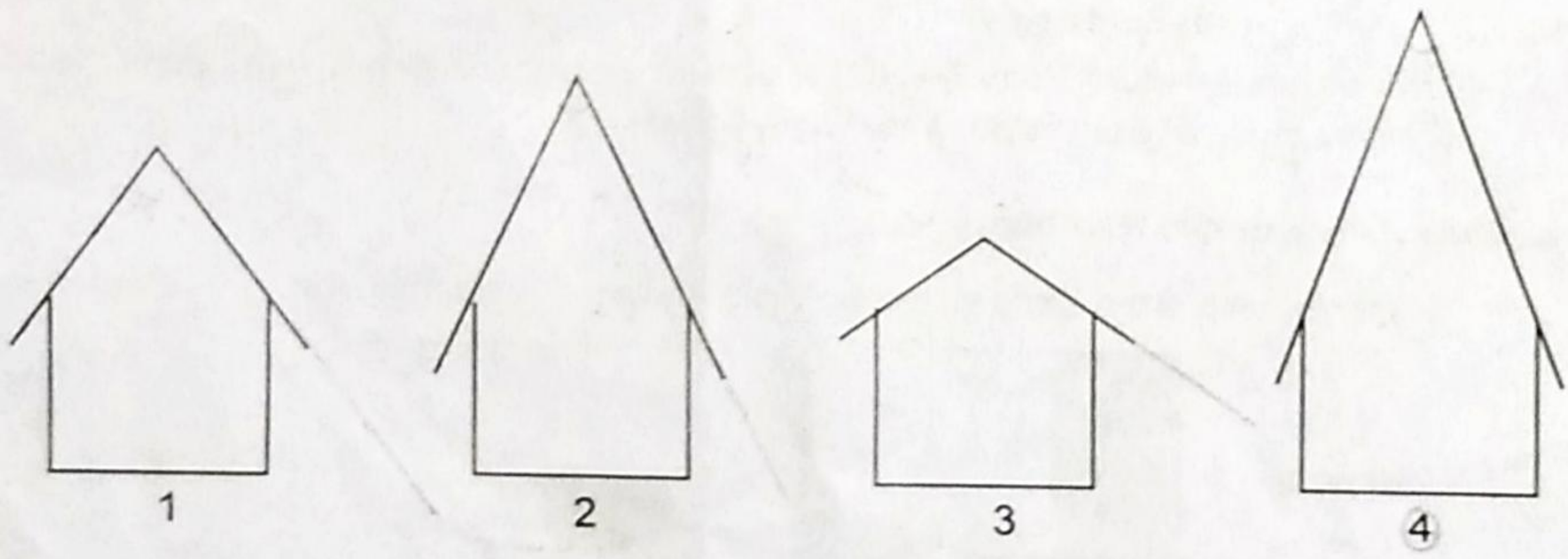e) Find the half of $\frac{1}{6}$.

Activity 3 - Onam Celebration ✓

30 students of a class collected Rs.600 to buy a cake for Onam celebration.

a) Which of the following statements may be true?

1. Each student contributed an amount less than Rs.20.

2. Each student contributed Rs.20. ✓

3. Each student contributed an amount more than Rs.20.

b) 5 students together contributed Rs.100. If their contributions were 5 consecutive numbers, find the contribution of each student.

c) Following table shows the collection of girls and boys. Complete the table suitably.

Section	Number of children	Collected Amount (Rupees)	Average (Rupees)
Boy	10	_____	24
Girl	20	360	_____

Activity 4 - Draw a House ✓
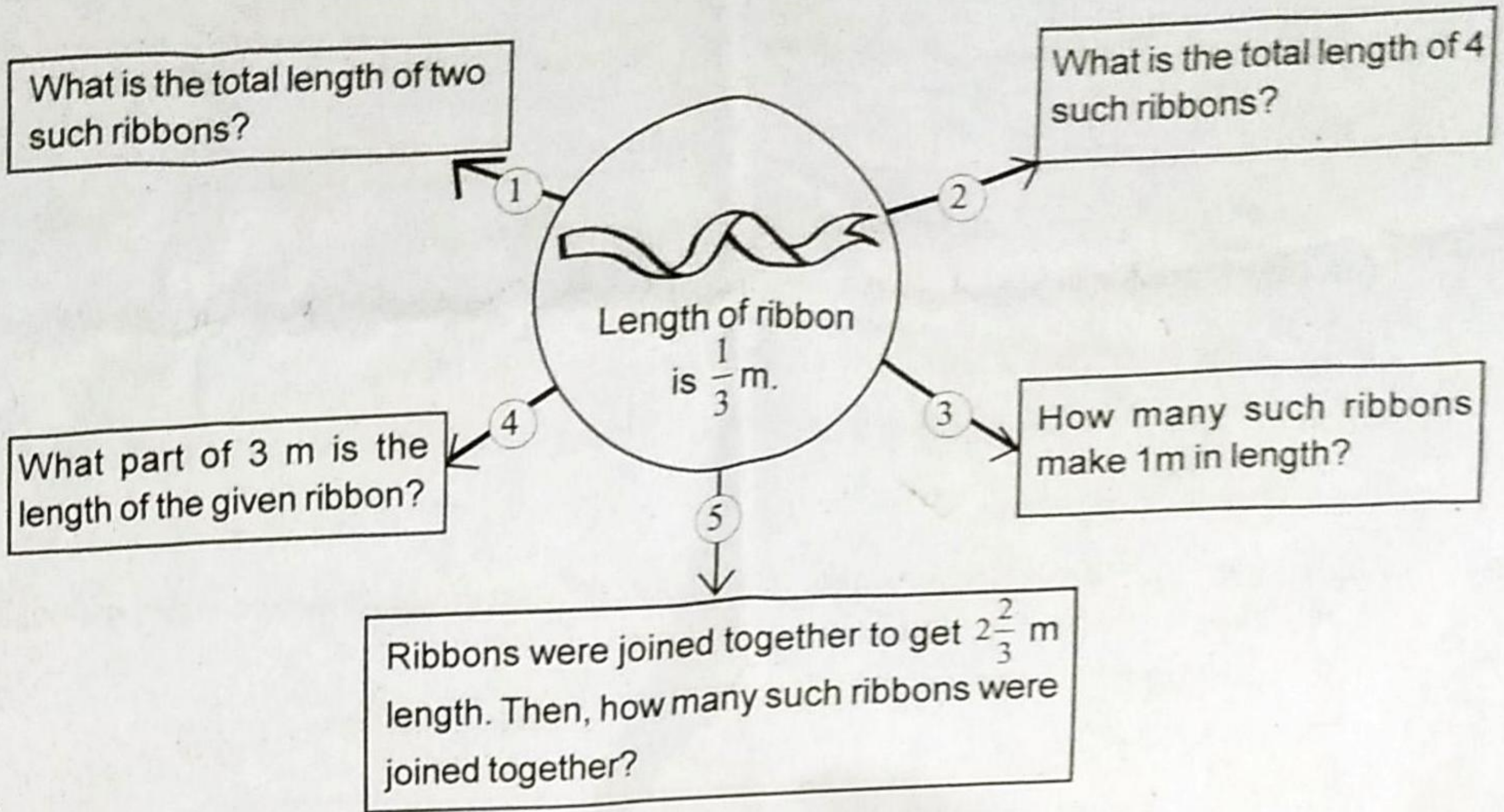
The following pictures show the outline of 4 small houses.
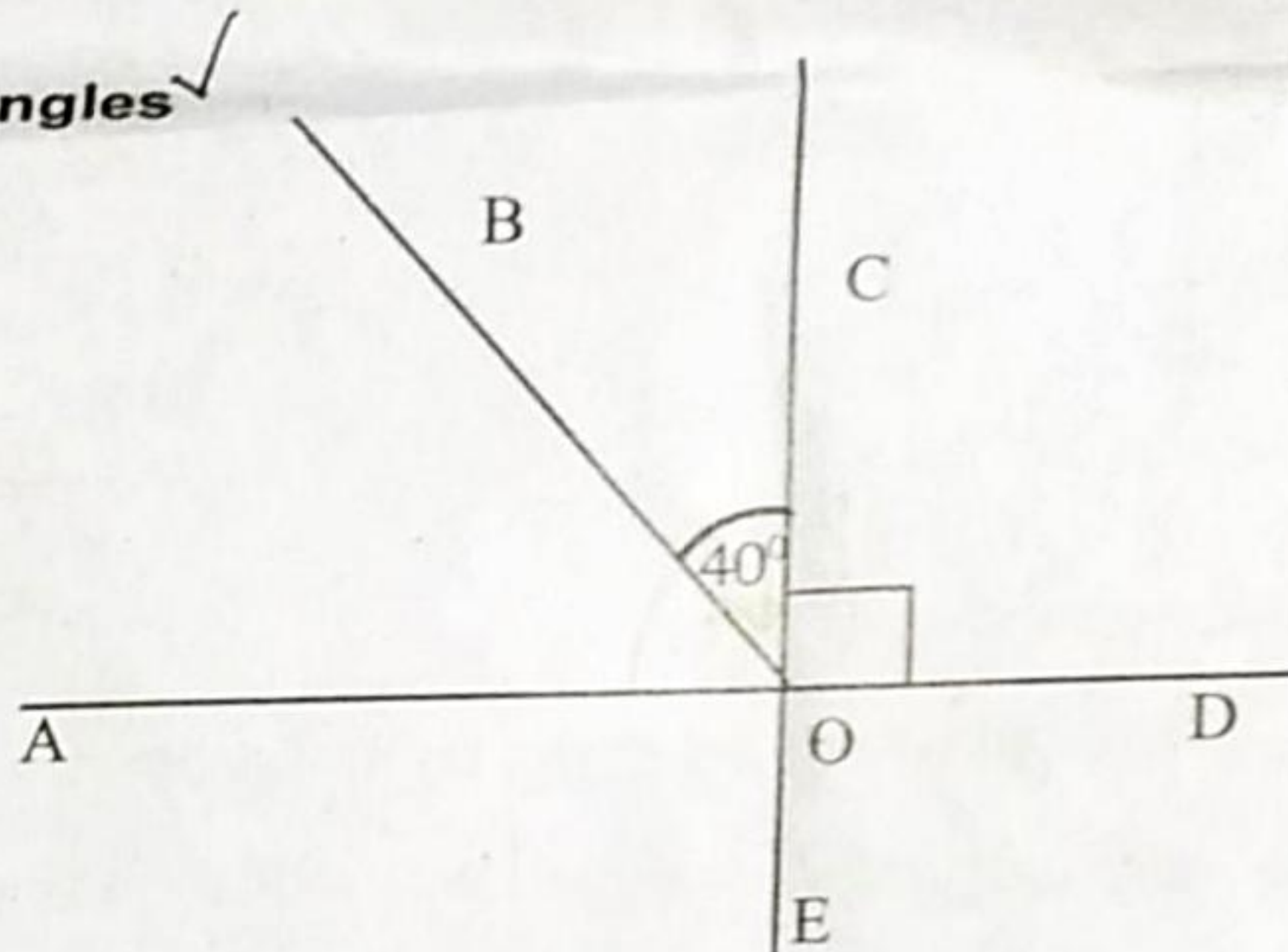

a) Which house has the greatest angle for its roof?

b) Rearrange the houses in ascending order of the measures of angles of the roofs.

    a. 1, 2, 3, 4   b. 3, 4, 1, 2   c. 4, 2, 1, 3 ✓   d. 2, 1, 3, 4

c) Draw an outline of a house having $80°$ angle for its roof.

Activity 5 - Join the Ribbons

Write the answers to all the questions based on the ribbon given in the middle.

What is the total length of two such ribbons?

What is the total length of 4 such ribbons?

Length of ribbon is $\frac{1}{3}$ m.

What part of 3 m is the length of the given ribbon?

How many such ribbons make 1m in length?

Ribbons were joined together to get $2\frac{2}{3}$ m length. Then, how many such ribbons were joined together?

Activity 6 - Find the Angles ✓

B

C

40°

A   O   D

E

Some angles in the figure are not equal. You know how to classify the angles according to their measures.

a) Write one angle each from the figure using the details given in the table.

Less than right angle	Exactly right angle	More than right angle

b) Draw an angle having 2 times the measure of ∠BOC.

A - E 603

20
40
6 80
80

20
x3
60

20
x6
120

Activity 7 - Interview ✓

The table shows the height of persons who had attended an interview of security officers in a company.

Name	Raghavan	Musthafa	Rajeev	Kabir	Mathai
Height	170 cm	148 cm	157 cm	165 cm	160 cm

Those persons having height at least 160 cm will only be selected.

a) Who are the persons not eligible for the security officer post based on their height?

b) What is the average height of all the persons given in the table?

c) What will be the average height of persons excluding those having height below 160 cm?

Activity 8 - Waste Collection ✓

As a part of a project in Kadamakudy Panchayat, different groups collected waste materials from different shops. The details are given below.

Group Number	No.of shops	Waste collected in1 month
Group 1	5	210 kg
Group 2	8	304 kg
Group 3	4	160 kg
Group 4	4	232 kg
Group 5	3	150 kg

a) Which group collected more waste? ✓

b) What is the average weight of waste collected by that group from a shop?

c) What is the average weight of waste collected by the Panchayat from a shop?