Note: (1) Think and Answer (2) Mind Choices

Name: **Date:**

Areas of Improvement:

Maximum Marks	
Marks Obtained	
%	

Parent's Signature	**Parent's Signature**

Note to Student: Please solve unattended questions in the notebook meant for the test.

Section A [0.5 x 6 = 3]

Q1. Mark True or False:

A. A polygon having all sides equal and all angles equal is known as a regular polygon .

Mark True / False.

B. Square is not a regular polygon. Mark True / False.

C. Rectangle is a regular polygon. Mark True / False.
D. Rhombus is an irregular polygon. Mark True/False.

E. The number of sides in a polygon can be a natural number or a fraction or a decimal number.

Mark True / False.

F. The smallest number of sides of a polygon is 4. Mark True / False.

Section B [1 x 2 = 2]

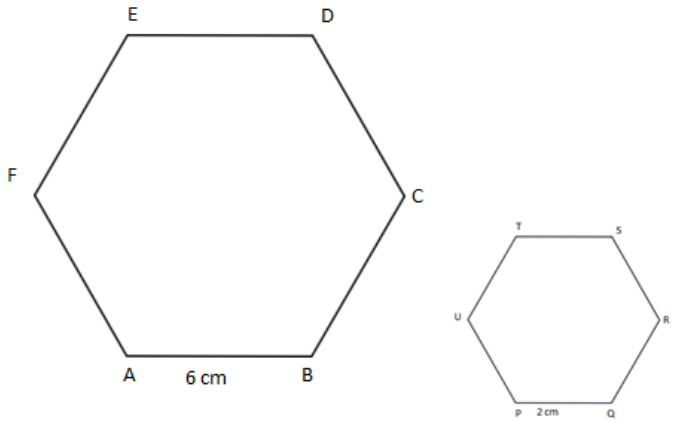
Q1. What is a regular polygon? State the name of a regular polygon of

(i) 3 sides

(ii) 4 sides

(iii) 6 sides

Q2. State whether the given statement is true or false.
Following regular hexagons are similar figures.



Section C (attempt any 7 questions) [1 x 7 = 7]

Q3. What is the measure of any exterior angle of a regular octagon?

Q4. What is the measure of the exterior angle of a regular hexagon?

Q5. The measure of the exterior angle of an 18-sided regular polygon.

Q6. How many sides does a regular polygon have, if the measure of an exterior angle is 24°?

Q7. Find the measure of the exterior angle of a regular pentagon and the exterior angle of a regular decagon. What is the ratio between these two angles?

Q8. Prove that the interior angle of a regular five-sided polygon (pentagon) is three times the exterior angle of a regular decagon.

Q9. The interior angle of a regular pentagon is four times the exterior angle of a regular decagon. State whether the given statement is correct or not.

Q10.Each interior angle of a regular octagon is equal to 135°. State whether the given statement is true or false.

Q11. Is it possible to have a regular polygon whose each interior angle is 170°
State true or false:

Q12. Is it possible to have a regular polygon whose each interior angle is :

(i) 170^o

(ii) 138^o

Section D (Attempt any three questions only) [3 x 3 = 9]

Q13. Find the number of sides of a regular polygon if each of its interior angles is 168°.

Q14. The angles of a hexagon are (2x + 5)°, (3x – 5)°, (x + 40)°, (2x + 20)°, (2x + 25)° and (2x + 35)°. Find the value of x.

Q15. Find the number of sides in a polygon if the sum of its interior angles is:
(i) 1260^o
(ii) 1980^o
(iii) 3420^o

Q16. The exterior angles of a pentagon are in ratio 1: 2 : 3: 4: 5. Find all the interior angles of the pentagon.