Geometrical constructions
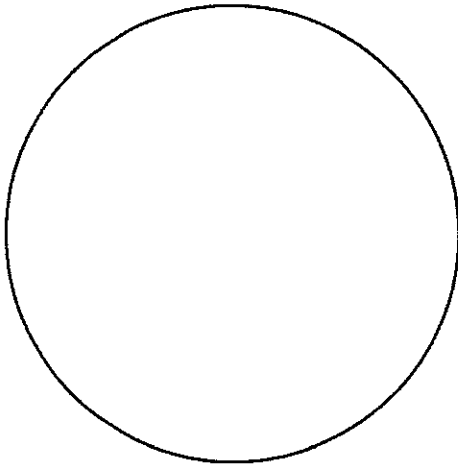
Name: _____

All Multiple Choice
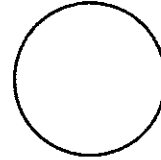
1   The radius of the circle drawn is:
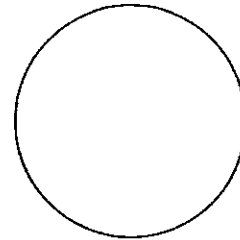

    A   2 cm
    B   3 cm
    C   4 cm
    D   6 cm

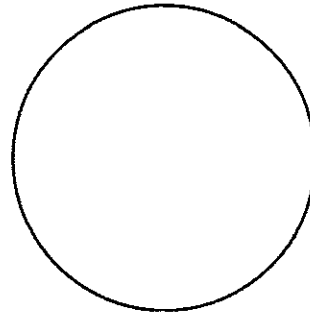2   Which of the circles drawn below has a diameter of 3 cm?
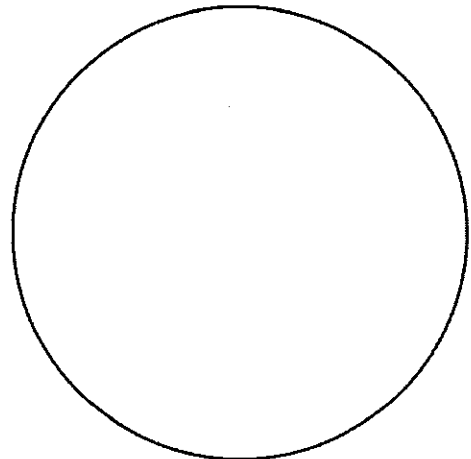
    A

    B

    C

    D

3   The figure drawn below is:

A   a semicircle with a 4 cm diameter
B   a semicircle with a 4 cm radius
C   a quadrant with a 4 cm diameter
D   a quadrant with a 4 cm radius.

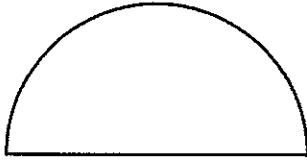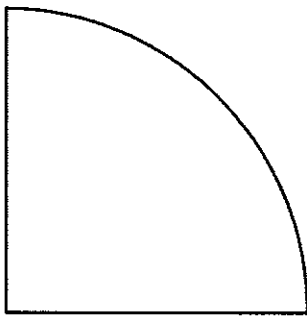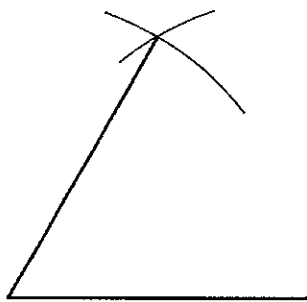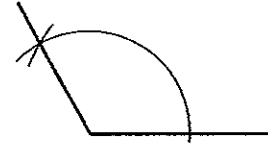**4**   The figure drawn below is:

A   a semicircle with a 4 cm diameter
B   a semicircle with a 4 cm radius
C   a quadrant with a 4 cm diameter
D   a quadrant with a 4 cm radius.

5   The figure below shows:
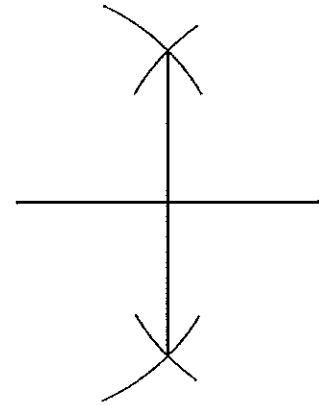

A   construction of a right angle
B   bisection of an angle
C   construction of a 60° angle
D   copying of an angle.

6   The figure below shows:

A   construction of a right angle
B   bisection of an angle
C   construction of a 60° angle
D   copying of an angle.

7   The figure below shows:

A   construction of a right angle
B   bisection of an angle
C   construction of a 60° angle
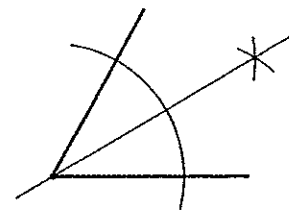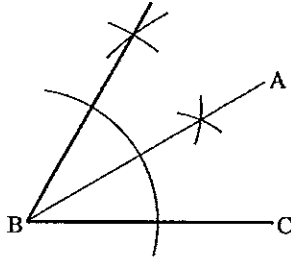D   copying of an angle.

8   The figure below shows:

A   construction of a right angle
B   bisection of an angle
C   construction of a 60° angle
D   copying of an angle.

9 Jamie constructs ∠ABC below.

The size of ∠ABC is
A   30°
B   45°
C   60°
D   90°

10 Kylie is asked by her teacher to construct a number of triangles having been given all three side lengths. Which of these triangles is it NOT possible to construct?
A   3 cm, 4 cm, 2 cm
B   2 cm, 4 cm, 5 cm
C   3 cm, 8 cm, 4 cm
D   4 cm, 5 cm, 7 cm

11 Which of the following triangles is it possible to construct using only a ruler and a pair of compasses?
A   Sides 4 cm, 5 cm and an included angle of 80°.
B   Side 6 cm with angles 60° and 50° made to this side.
C   Sides 5 cm, 8 cm and 4 cm.
D   All of the above

12 Trent is asked by his teacher to construct a number of triangles having been given one side length and two angles. Which of these triangles is it NOT possible to construct?
A   3 cm, 80°, 120°
B   2 cm, 40°, 120°
C   3 cm, 80°, 90°
D   4 cm, 40°, 20°

Geometrical constructions

Name: _____

1   Use your compass to construct a circle of
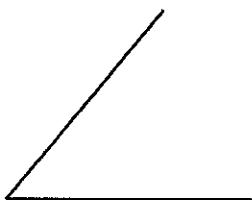   (a)   radius 2 cm

     (b)   diameter 3 cm.

2   (a)   Construct a semicircle with diameter
            4 cm.

     (b)   Construct a quadrant with radius 2.5 cm.
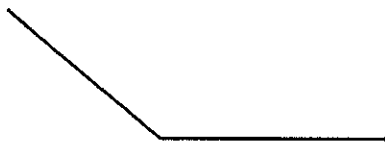
3   Construct a right angle.

4   Construct a 60° angle.

5   Copy each of the angles drawn below.

(a)

(b)

6   Bisect each of the angles in question **5**.

7   Construct angles of the following sizes.
        (a)   45°

        (b)   30°

        (c)   120°

8   Construct ΔABC with side lengths 5 cm, 2 cm and 4 cm.

9   Construct a triangle with side lengths 6 cm and 4 cm and an included angle of 50°.

10 Construct a triangle with a side length of 5 cm and angles of 80° and 40° made to this side.