

Directions: **For each problem, write each formula used on and below the “Formula” line. Show all work neatly. Round to tenths. Write your answer on the “Answer” line.**

1. Find the area of an equilateral triangle with a perimeter of 48.

Formula: _____ Answer: _____

Written above are the actual directions written on the test and an example of the format of the questions.

Notice that you should write each formula that you use to solve the problem on the “Formula” line.

As usual, you must show all your work including diagrams, equations, plugged-in formulas, all calculations, etc. in the blank space.

You will write your rounded answer and any units required on the “Answer” line.

Directions: **Show all work neatly. Round to tenths.**

The perimeter of each polygon is 48. Find the area if the polygon is:

1. An equilateral triangle
2. A regular hexagon
3. A regular octagon

Find the area of a square:

4. With perimeter 40
5. With radius 40
6. With apothem 40

A rhombus has perimeter 320. Find the area when:

7. A base angle is 70°
8. One diagonal is 100

A circle has circumference 250π . Find the area of:

9. A 150° sector
10. A 120° segment

11. Find the area of an oval having width 400 and length 1200.

12. One base of an isosceles trapezoid is ten longer than the other. The legs have length 13 and the area of the trapezoid is 200. Find the long base.

13. A circle of diameter 50 is inscribed in a square. Find the probability that a randomly chosen point from the square is outside the circle.