

Assignment

Date _____ Period _____

- 1) A garden in the shape of an equilateral triangle has sides whose lengths are 10 meters. What is the area of the garden? Leave your answer as a simplified radical.

$$25\sqrt{3}$$

- 2) In $\triangle XYZ$, segment $XY = 18$, segment $XZ = 12$, and the measure of angle $X = 80^\circ$. Find the area of $\triangle XYZ$, to the nearest tenth of a square unit.

$$106.4 \text{ square units}$$

- 3) A triangular plot of land has sides that measure 5 meters, 7 meters, and 10 meters. To the nearest tenth of a square meter, what is the area of this plot of land?

$$16.2 \text{ square meters}$$

- 4) In an isosceles triangle, the two congruent sides each measure 20 inches, and they include an angle of 35 degrees. To the nearest square inch, find the area of the isosceles triangle.

$$115 \text{ square inches}$$

- 5) A farmer has determined that his crop of strawberries yields a yearly profit of \$1.50 per square yard. The strawberries are planted on a triangular piece of land whose sides are 50 yards, 75 yards, and 100 yards. To the nearest hundred dollars, how much profit should the farmer expect to make from this piece of land during the next harvest?

$$\$2700$$

- 6) In a rhombus, each side is 22 cm, and one angle is 125° . Find the area of the rhombus, to the nearest square centimeter.

$$396 \text{ cm}^2$$

- 7) A farmer has a triangular field with sides of 240 feet, 300 feet, and 360 feet. He wants to apply fertilizer to the field. If one 40-pound bag of fertilizer covers 6,000 square feet, how many bags must he buy to cover the field?

$$\text{Six bags}$$