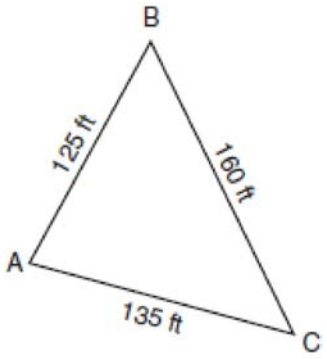
A2.A.74: Heron's Formula: Determine the area of a triangle or a parallelogram, given the measure of two sides and the included angle

1 A garden in the shape of an equilateral triangle has sides whose lengths are 10 meters. What is the area of the garden?

1) $25\ m^2$
2) $25\sqrt{3}\ m^2$
3) $50\ m^2$
4) $50\sqrt{3}\ m^2$

2 The accompanying diagram shows a triangular plot of land located in Moira's garden.



Find the area of the plot of land, and round your answer to the *nearest hundred square feet.*

3 A triangular plot of land has sides that measure 5 meters, 7 meters, and 10 meters. What is the area of this plot of land, to the *nearest tenth of a square meter*?

4 A farmer has determined that a crop of strawberries yields a yearly profit of $1.50 per square yard. If strawberries are planted on a triangular piece of land whose sides are 50 yards, 75 yards, and 100 yards, how much profit, to the *nearest hundred dollars,* would the farmer expect to make from this piece of land during the next harvest?

5 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?

A2.A.74: Heron's Formula: Determine the area of a triangle or a parallelogram, given the measure of two sides and the included angle
Answer Section

1 ANS: 2 PTS: 2 REF: 010417b

2 ANS:
8,200

PTS: 6 REF: 060933b

3 ANS:
16.2

PTS: 6 REF: 060634b

4 ANS:
2700

PTS: 6 REF: 060333b

5 ANS:
6

PTS: 6 REF: 080734b