AFM Test Review Trig Unit 4 Name_____

I. State the number of solutions each triangle will have.

1. A = 70°, b = 12, a = 8
2. a = 15, b = 10, B = 35°
3. a = 8, C = 65°, c = 4
4. B = 33°, a = 1, b = 1.2
5. a = 16, b = 8, c = 20

II. Tell if you would use Law of Sines or Law of Cosines to solve each triangle.

1. C = 25°, c = 11, A = 30°
2. b = 6, c = 10, A = 70°
3. a = 2, b = 5, A = 63°
4. a = 4, b = 15, c = 6
5. a = 12, b = 15, C = 52°

III. Solve the triangle. Round angles to nearest minute and sides to nearest tenth.

1. A = 38°, a = 172, b = 203
2. A = 51°, b= 7, c= 10
3. A = 58°, b = 29, a = 26
4. a= 4, b = 5, c= 7

IV. Find the Area.

1. a = 5, b = 6, c = 7
2. A = 37°, B = 84°, and c = 5
3. a = 4, b = 5, c = 7
4. C = 28°, a = 14, b = 9

V. Draw the triangle and show all work. Round answers to the nearest tenth.

1. From the top of a lighthouse $163\,ft$ above sea level the angle of depression of a ship at sea is $31^\circ 20'$. Find the distance of the ship from the base of the lighthouse.

2. A tree casts a shadow on the ground because of the sun's rays.
The length of the shadow is $75\,ft$. The angle of elevation is 32°. Find the height of the tree.

3. The measure of angle B is 56°. The measure of angle C is 90° and side c measures 20.
Solve the triangle.