

PreCalculus

WS: 6.1 – 6.2 Review

Name _____

Date _____ Block _____

In 1 – 6, solve the triangle for all angles and sides. If two solutions exist, find both.

1. $c = 13, b = 8, B = 31^\circ$

4. $A = 33^\circ, B = 70^\circ, b = 7$

2. $A = 55^\circ, b = 12, c = 7$

5. $A = 45^\circ, a = 1.4, b = 2$

3. $a = 5.7, b = 2.3, c = 7.1$

6. $b = 4, c = 12, a = 9$

In 7 – 9, find the area of the triangle to the nearest tenth.

7. $A = 52^\circ, b = 14 \text{ m}, c = 21 \text{ m}$

8. $a = 5.7 \text{ in.}, b = 2.3 \text{ in.}, c = 7.1 \text{ in.}$

9. $a = 7 \text{ cm}, b = 8 \text{ cm}, c = 9 \text{ cm}$

In 10 – 14, solve each problem.

10. Find the area of a regular hexagon inscribed in a circle with a radius of 12 inches.

11. Miguel's specially trained measuring robot wants to find the distance between two points, A and B , on opposite sides of a building. The robot locates a point C that is 110 feet from A and 160 feet from B . If the angle at C is 54° , find AB .

12. Two observers are 400 feet apart on opposite sides of a tree. The angles of elevation from the observers to the top of the tree are 15° and 20° . Find the height of the tree.

13. Find the area of a quadrilateral whose sides are 9 m, 40 m, 28 m and 15 m and the angle between the first two sides is 90° .

14. Matt measures the angle of elevation of the peak of a mountain as 35° . Susie, who is 1200 feet closer to the mountain on a straight level path, measures the angle of elevation as 42° . How high is the mountain?

(Hint: Find f first.)

