$\qquad$ Date: $\qquad$ Period: $\qquad$ Geo w/ Trig

## Sections 8.2-8.3 Review

Find the missing side lengths for each of the following triangles. Leave your answer in simplest radical form.
1)

2)

3)

4) A 10 -foot ladder is placed against a building. The base of the ladder is 6 feet from the building. How high does the ladder reach on the building?
5) Find the area of the triangle below. Leave your answer in simplest radical form.


Determine whether the following side lengths create a triangle. If yes, classify the triangle as acute, right, or obtuse.
6) $10,11,20$
7) $5 \sqrt{2}, 10,11$
8) $12,14,49$

Find the missing variables in each of the following triangles.
9)

10)


$$
x=\ldots \quad y=
$$

$$
x=\ldots y=
$$

11) 


$x=$ $\qquad$
12)

13)

$$
x=\ldots y=
$$

$x=$ $\qquad$
14)


Find the value of each variable. Leave your answers in simplest radical form.
15)

16)

17)

$z=$ $\qquad$
$x=$ $\qquad$
$\boldsymbol{s}=$ $\qquad$
18) The hypotenuse of an isosceles right triangle is 8 in . Find the length of a leg. Leave in simplest radical form.
19) In a $30^{\circ}-60^{\circ}-90^{\circ}$ triangle, the shorter leg is 6 ft long. Find the length of the other two sides. Leave in simplest radical form.
20) Find the value of each missing variable. Leave your answer in simplest radical form.


