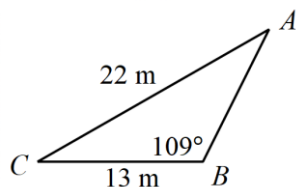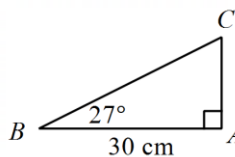Name _____ Date _____ Period _____

State whether the triangle is SAS, AAS, ASA, SSS, SSA (if is SSA state that there will be triangles). Determine if you would use Right Triangle Trig, Las of Sines, or Law of Cosines to find the missing values.
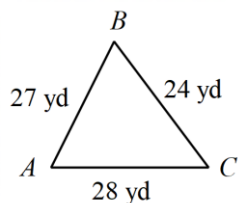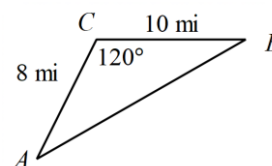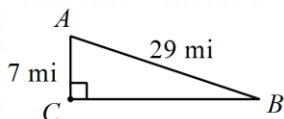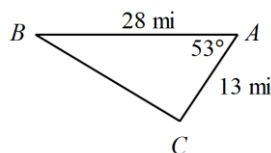
1.

2.

3.

4.
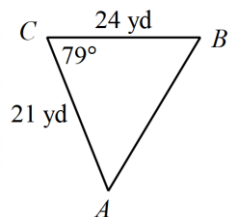

5.
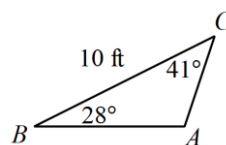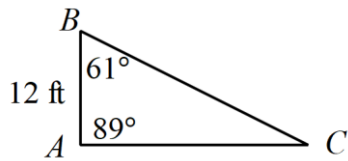

6.

7.

8.

9. $a = 17.2$ ft, $b = 17.7$ ft, $c = 21.1$ ft

10. $m\angle B = 38°, a = 20$ mi, $b = 22$ mi

11. $m\angle C = 92°, c = 33$ m, $b = 18$ m

12. $m\angle C = 90°, b = 28$ in, $a = 18$ in

Solve each triangle. Round your answers to the nearest tenth.

13.

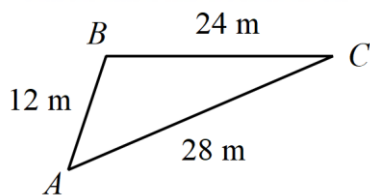$m\angle A =$ _____ $a =$ _____

$m\angle B =$ _____ $b =$ _____

$m\angle C =$ _____ $c =$ _____

14.

$m\angle A =$ _____ $a =$ _____

$m\angle B =$ _____ $b =$ _____

$m\angle C =$ _____ $c =$ _____

15. $m\angle C = 90°, a = 10$ mi, $c = 26$ mi

$m\angle A =$ _____ $a =$ _____

$m\angle B =$ _____ $b =$ _____

$m\angle C =$ _____ $c =$ _____

16. $m\angle B = 91°, a = 24$ yd, $c = 14$ yd

$m\angle A =$ _____ $a =$ _____

$m\angle B =$ _____ $b =$ _____

$m\angle C =$ _____ $c =$ _____

17. Find the missing side lengths. Round to the nearest tenth.

48°
27°
x
y
42°
32 meters
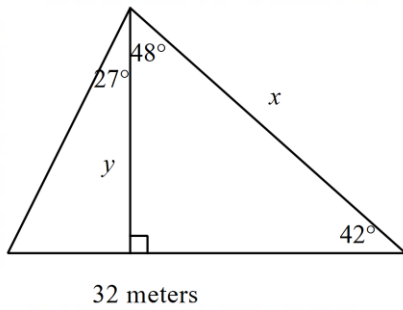
ACT Review Questions: <u>Show all of your work</u> and circle the correct answer.

18. In the right triangle below; the measure of $\angle C$ is $90°$, $AB = 5$ units, and $CB = 2$ units. What is the $\tan B$?
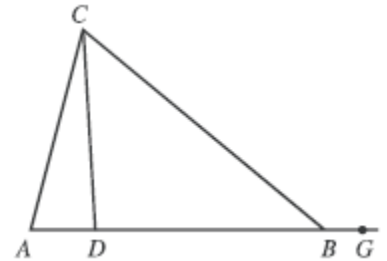
A. $\dfrac{\sqrt{21}}{2}$

B. $\dfrac{3}{2}$

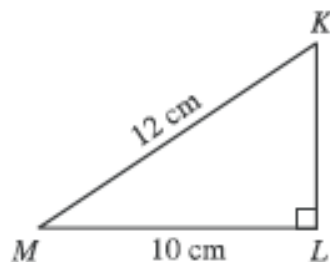C. $\dfrac{\sqrt{21}}{5}$

D. $\dfrac{3}{5}$

E. $\dfrac{2}{5}$
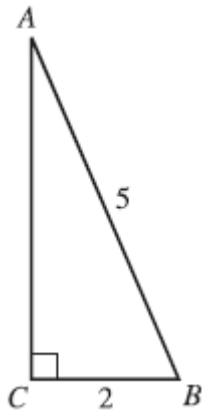
19. In the figure below, A, D, B, and G are collinear. If $\angle CAD$ measures 76°, $\angle BCD$ measures 47°, and $\angle CBG$ measures 140°, what is the degree measure of $\angle ACD$?

A. 12°

B. 14°

C. 17°

D. 36°

E. 43°

20. For right triangle $\triangle KLM$ below, what is $\sin \angle M$?

A. $\dfrac{10}{12}$

B. $\dfrac{12}{10}$

C. $\dfrac{\sqrt{44}}{10}$

D. $\dfrac{10}{\sqrt{44}}$

E. $\dfrac{\sqrt{44}}{12}$

21. The directions for assembling the six foot high pool state that the ladder should be placed at an angle of 75° relative to level ground. Which of the following expressions involving tangent gives the distance, in feet, that the bottom of the ladder should be placed away from the bottom edge of the pool in order to comply with directions?

A. $\dfrac{6}{\tan 75°}$

B. $\dfrac{\tan 75°}{6}$

C. $\dfrac{1}{6 \tan 75°}$

D. $6 \tan 75°$

E. $\tan(6 \cdot 75°)$