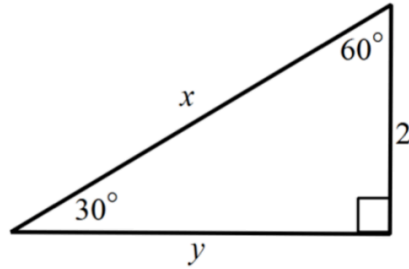**Extra Review Problems on Pythagorean Theorem and Trig**
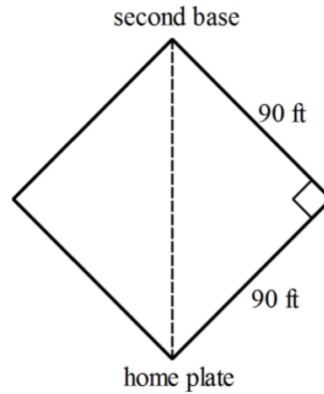
11. In the right triangle, x and y represent unknown side lengths. What is the length of side x ?

    A. 2

    B. 4

    C. $2\sqrt{3}$

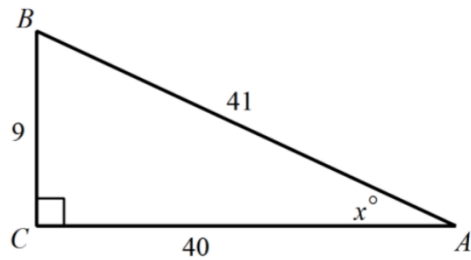   D. $3\sqrt{2}$

12. In the figure, what is the distance a ball travels when thrown from second base to home plate?

    A. $90\ feet$

    B. $180\ feet$
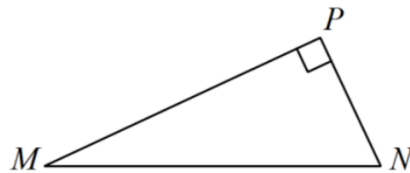
    C. $90\sqrt{2}\ feet$

    D. $2\sqrt{90}\ feet$

13. What is $\cos x°$ in the triangle?

    A. $\dfrac{40}{41}$ C. $\dfrac{41}{9}$

    B. $\dfrac{9}{41}$ D. $\dfrac{9}{40}$

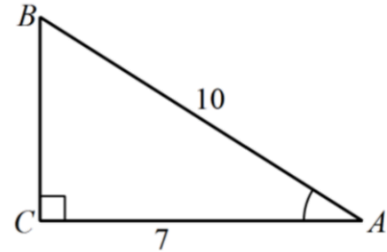14. Which of the following has the same value as $\sin M$?

    A. $\sin N$

    B. $\tan M$

    C. $\cos N$

    D. $\cos M$

15. What is the measure of angle A in the triangle, rounded to the nearest degree?

A. 35°

B. 44°

C. 46°

D. 72°

16. A person is standing at ground level with the base of the Empire State Building in New York City. The angle formed by the ground and a line segment from his position to the top of the building is 48.4°. The height of the Empire State Building is 1472 feet. Find the distance that he is standing from the base of the Empire State Building to the nearest foot.

A. 8 feet

C. 1968 feet

B. 1307 feet

D. 2217 feet

17. Find the value of x in the diagram below. Round your answers to the nearest tenth if necessary.

A. $x = 12.2$

B. $x = 13.1$

C. $x = 24.5$

D. $x = 26.2$
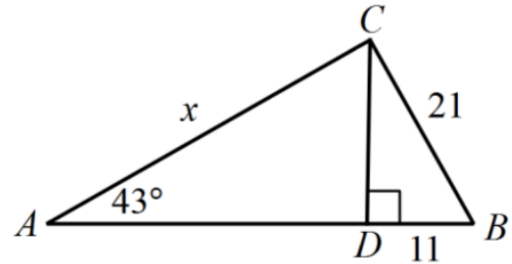
HINT: Use Pythagorean Theorem to find length of CD and then use trig ratio to find x.

Answers:

11. B   12. C   13. A   14. C   15. C   16. B   17. D