NAME DATE PERIOD

Curated Practice Problem Set

Unit 4 Lesson 8 Cumulative Practice Problems

1. Select **all** the true equations.

   A. $\cos(15) = \sin(15)$

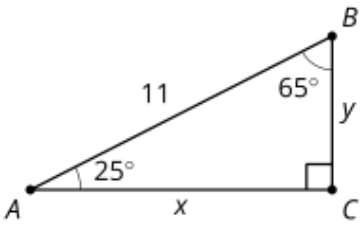
   B. $\cos(75) = \sin(15)$

   C. $\cos(75) = \cos(15)$

   D. $\cos(15) = \sin(75)$

   E. $\tan(15) = \tan(75)$

2. Write 2 expressions that can be used to find the value of x.



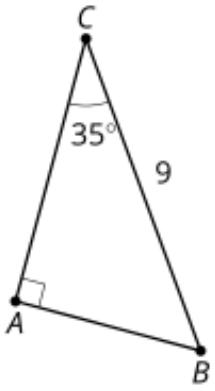
3. Andre and Mai are discussing how to solve for side AB. Andre thinks he can use the equation $\tan(12) = \frac{x}{6}$ to solve for AB. Mai thinks she can use the equation $\tan(78) = \frac{6}{x}$ to solve for AB. Do you agree with either of them? Show or explain your reasoning.

NAME DATE PERIOD

4. *Technology required.* Jada is visiting New York City to see the Empire State building. She is 100 feet away when she spots it. To see the top, she has to look up at an angle of 86.1 degrees. How tall is the Empire State building?

(From Unit 4, Lesson 7.)

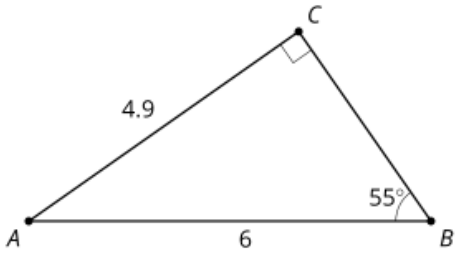
5. *Technology required.* Find the missing measurements in triangle ABC.



(From Unit 4, Lesson 7.)

6. Right triangle ABC is shown.

Write 2 expressions which are equal to the length of side BC.



(From Unit 4, Lesson 6.)

NAME DATE PERIOD

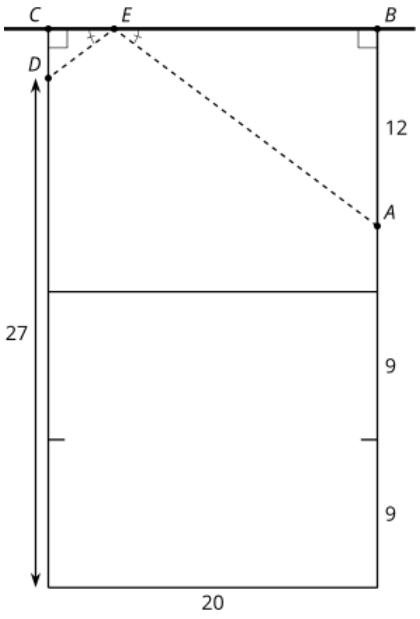
7. A triangle has sides with lengths 7, 24, and 25.

   a. Verify this is a Pythagorean triple.

   b. Approximate the acute angles in this triangle.

(From Unit 4, Lesson 5.)

8. Priya is playing hand ball and wants the ball to bounce off wall CB and land at D. The court is 20 feet wide and 34 feet deep. Where on the wall should she aim if she's standing at point A?



(From Unit 3, Lesson 16.)