Name Key Date _____ Pd ___

9.6 Solving Right Triangles DAY ONE CYU

☑ *Use when you get it right all by yourself*

S *Use when you did it all by yourself, but made a silly mistake*

H *Use when you could do it alone with a little help from teacher or peer*

G *Use when you completed the problem in a group*

X *Use when a question was attempted but wrong (get help)*

N *Use when a question was not even attempted*

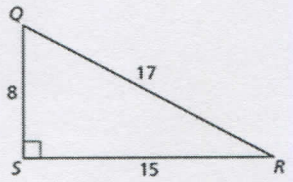
CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Working backwards given ratio of sides		1, 2, 3	
Solving right triangles	4, 6, 7	5, 8, 9	
Real World Application			10 - 12

Determine which of the two acute angles has the given trigonometric ratio.

1. The sine of the angle is $\frac{8}{17}$. ∠R

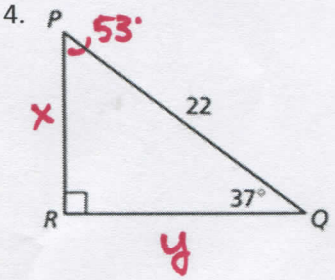
2. The cosine of the angle is $\frac{15}{17}$. ∠R

3. The tangent of the angle is $\frac{15}{8}$. ∠Q



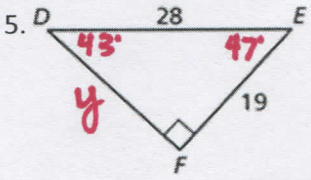
Solve the right triangle (fill in all missing sides and angle measures.) Round decimal answers to the nearest tenth.

4.



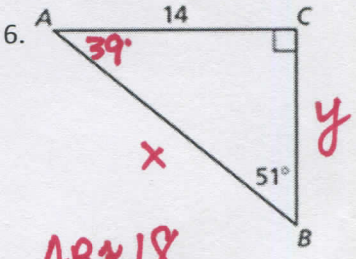
PR ≈ 13.2 RQ ≈ 17.6

5.



DF ≈ 20.6

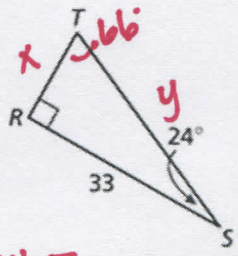
6.



AB ≈ 18

BC ≈ 11.3

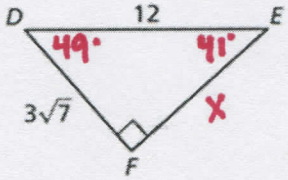
7.



RT ≈ 14.7

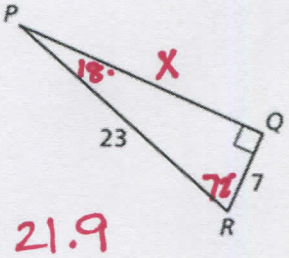
ST ≈ 36.1

8.



EF = 9

9.

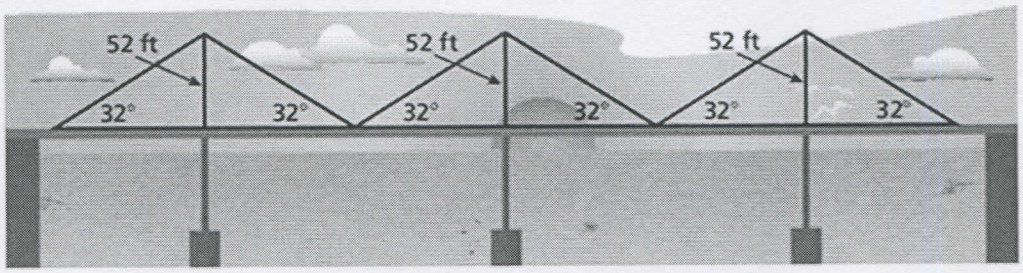


PQ ≈ 21.9

Real-World Application

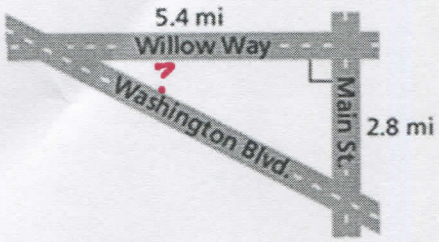
10. Use the diagram to find the distance across the suspension bridge. Round your answer to the nearest foot.

≈499 ft



11. Use the diagram to find the acute angle formed by Washington Boulevard and Willow Way. Round your answer to the nearest tenth.

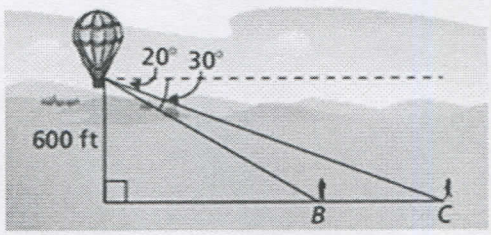
≈27.4°



12. You are in a hot air balloon that is 600 feet above the ground. You can see two people. The angles of depression to person B and to person C are 30° and 20°, respectively.

a) How far is person B from the point on the ground below the hot air balloon?

≈1039 ft



b) How far is person C from the point on the ground below the hot air balloon?

≈1648 ft

c) How far apart are the two people?

≈609 ft

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.