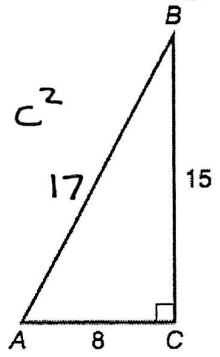
HW 9-1

Name: Selected Answers
Period: _____

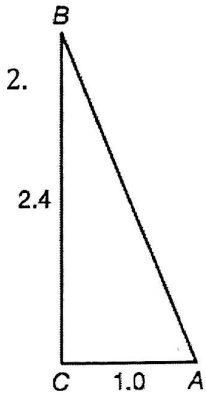
Find the missing side length:

1.

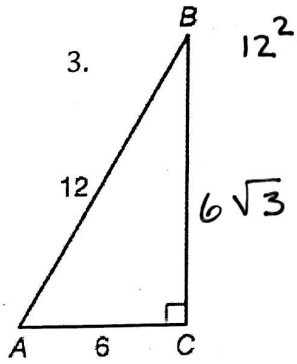


$64 + 225 = c^2$

2.



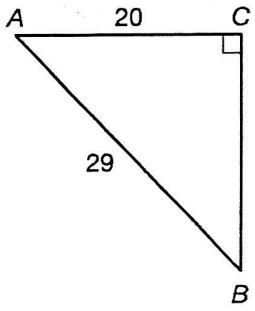
3.



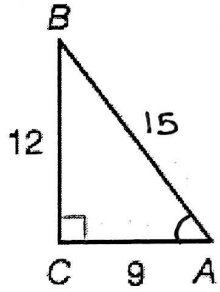
$12^2 = 6^2 + b^2$

Find all trigonometric functions for angle A in problems 7-8:

7.



8.



$12^2 + 9^2 = c^2$

$\sin A = 4/5$

$\cos A = 9/15 = 3/5$

$\tan A = 4/3$

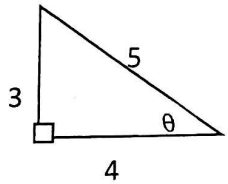
$\csc A = 5/4$

$\sec A = 5/3$

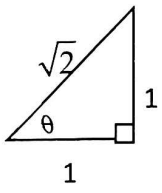
$\cot A = 3/4$

Find all trigonometric functions for the given triangles for angle θ .

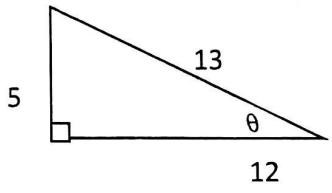
9.



10.



11.



$\sin\theta = \sqrt{2}/2$

$\cos\theta = \sqrt{2}/2$

$\tan\theta = 1$

$\csc\theta = \sqrt{2}$

$\sec\theta = \sqrt{2}$

$\cot\theta = 1$

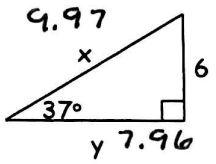
Evaluate using a calculator. Round to 3 decimal places.

12. sin 23° 13. cos 59° 14. tan 87° 15. sin 4°

0.391 19.081

Set up and use trigonometric ratios to find the missing values.

14.



$\sin 37^\circ = 6/x$

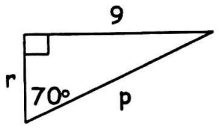
$x = \frac{6}{\sin 37^\circ} = 9.970$

$\tan 37^\circ = 6/y$

$y \tan 37^\circ = 6$

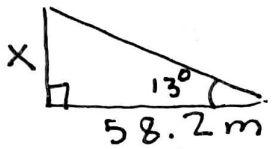
$y \approx 7.96$

15.



16. The angle of elevation from the base of a waterslide to the top is about 13°. The slide extends horizontally (along the ground) about 58.2 meters. How tall is the slide?

hint:



$\tan = \frac{o}{a}$

17. You are painting a mural on a wall 18 feet high. So the ladder is stable, is must be placed 6 feet away from the wall. To the nearest foot, how tall must the ladder be?

$18^2 + 6^2 = l^2$

$l \approx 19$ ft

BONUS: A standard baseball diamond is a square with 90 foot sides. How far must the first baseman be able to throw to get someone out on third base? Give answer to the nearest tenth of a foot.