

Name:

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# HOMEWORK 6.9

SECONDARY MATH II

Based on the given trig ratio, sketch a triangle to find the value for the missing side length and ratios. A and B are non right angles in a right triangle.

1.

a.  $\tan(A) = \frac{3}{4}$

b.  $\sin(A) =$

c.  $\cos(A) =$

d.  $\tan(B) =$

e.  $\sin(B) =$

f.  $\cos(B) =$

Sketch the triangle:

2.

a.  $\tan(A) =$

b.  $\sin(A) =$

c.  $\cos(A) =$

d.  $\tan(B) =$

e.  $\sin(B) = \frac{8}{17}$

f.  $\cos(B) =$

Sketch the triangle:

3.

a.  $\tan(A) =$

b.  $\sin(A) =$

c.  $\cos(A) = \frac{12}{13}$

d.  $\tan(B) =$

e.  $\sin(B) =$

f.  $\cos(B) =$

Sketch the triangle:

4.

a.  $\tan(A) =$

b.  $\sin(A) =$

c.  $\cos(A) =$

d.  $\tan(B) =$

e.  $\sin(B) = \frac{1}{\sqrt{2}}$

f.  $\cos(B) =$

Sketch the triangle:

Given a right triangle with angles A and B as the non-right angles. Determine if the statements below are true or false. Justify your reasoning and show your argument.

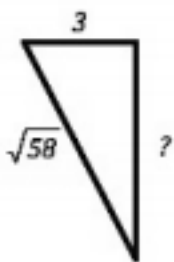
5.  $\cos(A) = \frac{1}{\sin(A)}$

6.  $\tan(B) = \tan(90^\circ - A)$

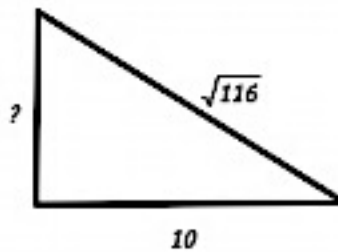
7.  $\tan(A) \cdot \cos(A) = \sin(A)$

Find the missing length in each right triangle. Then determine the slope of the hypotenuse.

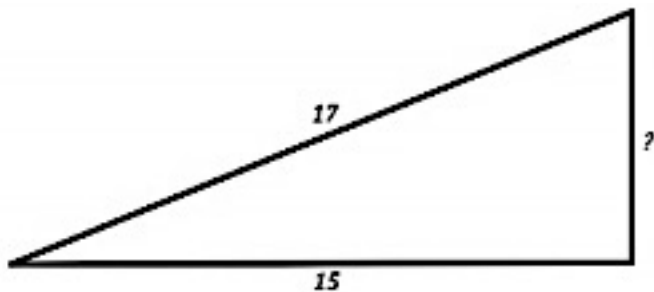
8.



9.



10.



Answers:

1. side length = 5

b)  $\frac{3}{5}$

c)  $\frac{4}{5}$

d)  $\frac{4}{3}$

e)  $\frac{4}{5}$

4. side length = 1

a) 1

b)  $\frac{1}{\sqrt{2}}$

c)  $\frac{1}{\sqrt{2}}$

d) 1

5. false

6. true

7. true

9. side length = 4, slope =  $\frac{4}{10} = \frac{2}{5}$