

Name: _____

Right Triangle Trigonometry

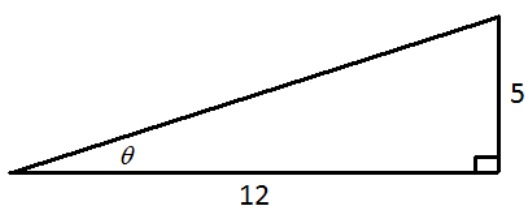
Exercise 1: Construct appropriate triangles to complete the table.

$$\left(0 \leq \theta \leq 90^\circ, 0 \leq \theta \leq \frac{\pi}{2}\right)$$

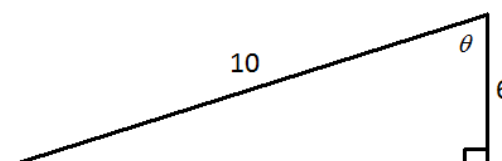
Numbers	Function	θ (in degrees)	θ (in radians)	Function Value
1)	sin	90°		
2)	sec		$\frac{\pi}{3}$	
3)	tan	30°		
4)	cos			$\frac{1}{2}$
5)	csc		$\frac{5\pi}{4}$	
6)	cot	45°		
7)	sec		π	
8)	sin			0
9)	tan		$\frac{2\pi}{3}$	
10)	cos			-1

Exercise 2: Find the exact values of the six trigonometric functions of the angle θ shown in the figure.

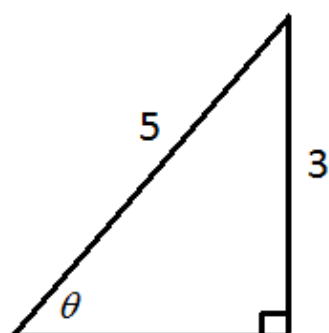
1)



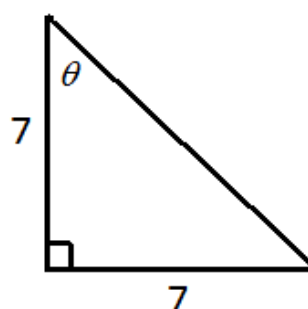
2)



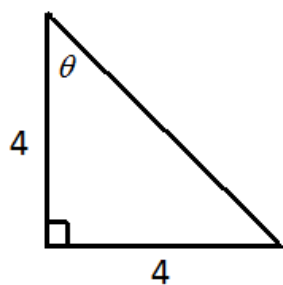
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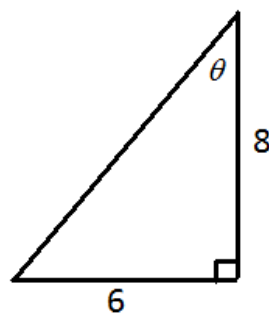
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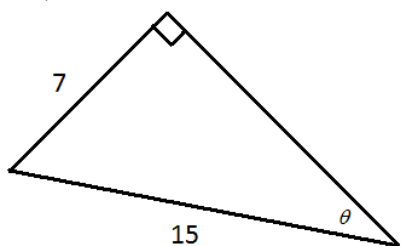
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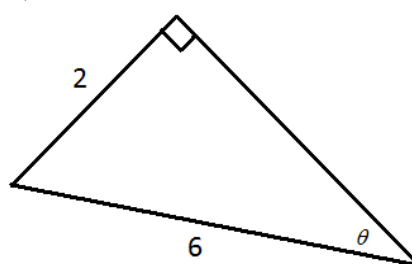
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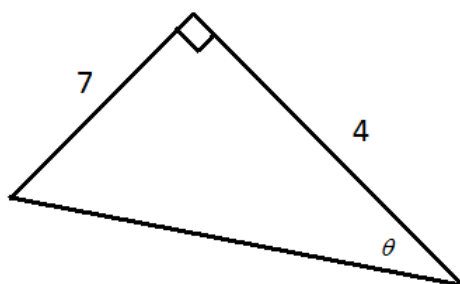
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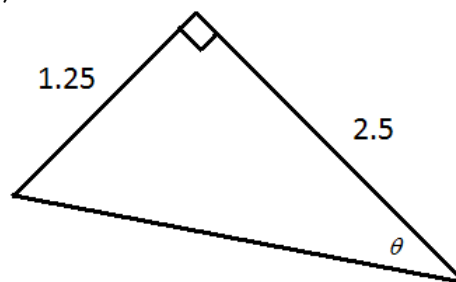
8)



9)



10)



Exercise 3: For each expression, give the exact value.

1) $\sin 60^\circ$

2) $\cos 60^\circ$

3) $\tan 60^\circ$

4) $\csc 30^\circ$

5) $\cot 45^\circ$

6) $\sec 45^\circ$

7) $\tan 30^\circ$

8) $\cot 30^\circ$

9) $\sin 30^\circ$

10) $\cos 30^\circ$

11) $\sec 30^\circ$

12) $\csc 30^\circ$

13) $\csc 45^\circ$

14) $\cos 45^\circ$

15) $\sec 45^\circ$

16) $\cot 45^\circ$