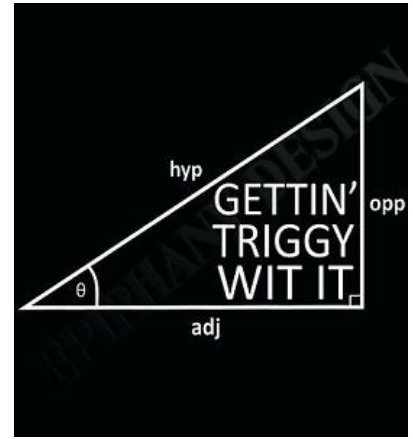


Name \_\_\_\_\_

# FOM 3 Unit 7: Trig

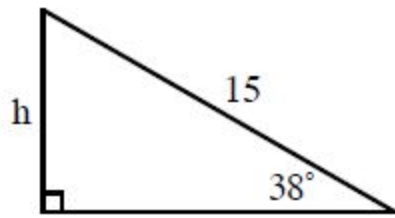


Monday	Tuesday	Wednesday	Thursday	Friday
		<b>November 20</b> <ul style="list-style-type: none"> <li>Right triangle trig</li> </ul> HW: worksheet 7.1	<b>November 21</b> <ul style="list-style-type: none"> <li>Angles in degrees</li> </ul> HW: worksheet 7.2	<b>November 22</b> <ul style="list-style-type: none"> <li>Angles in radians</li> </ul> HW: worksheet 7.3
<b>November 25</b> <ul style="list-style-type: none"> <li>Exact values of sine, cosine, and tangent</li> </ul> HW: worksheet 7.4	<b>November 26</b> <ul style="list-style-type: none"> <li>QUIZ!!</li> <li>Graphs of sine and cosine</li> </ul> HW: worksheet 7.5	<b>November 27</b> <ul style="list-style-type: none"> <li>No School (:</li> </ul>	<b>November 28</b> <ul style="list-style-type: none"> <li>No School (:</li> </ul>	<b>November 29</b> <ul style="list-style-type: none"> <li>No School (:</li> </ul>
<b>December 2</b> <ul style="list-style-type: none"> <li>Equations of sine and cosine</li> </ul> HW: worksheet 7.6	<b>December 3</b> <ul style="list-style-type: none"> <li>Review</li> </ul> HW: finish review	<b>December 4</b> <ul style="list-style-type: none"> <li>TEST!!</li> </ul>		

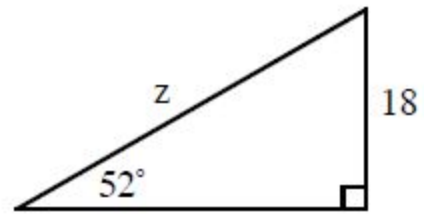
### 7.1 - Right Triangle Trig

Solve for the variable.

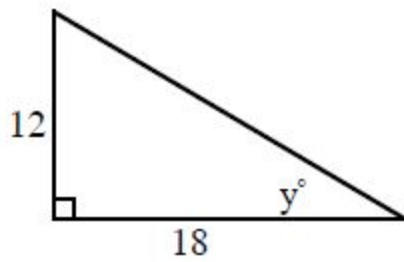
1.



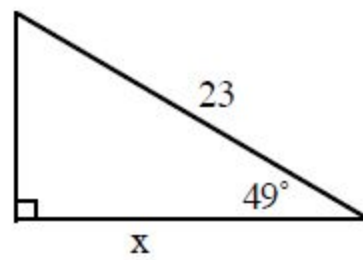
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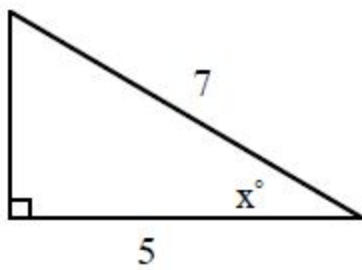
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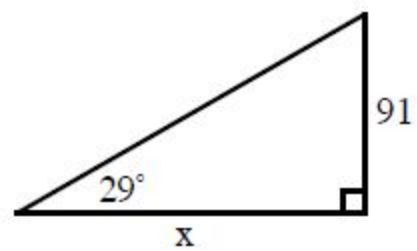
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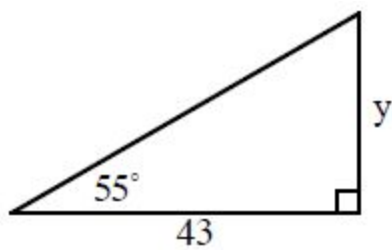
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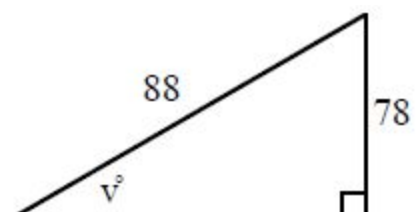
6.



7.



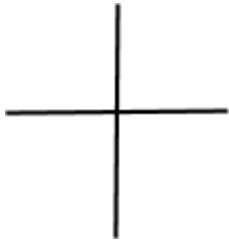
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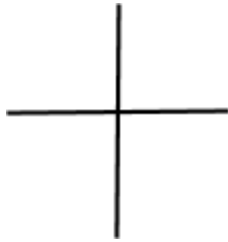
## 7.2 - Angles (Degrees)

Draw each angle in standard position.

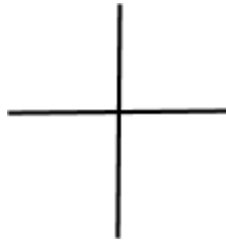
1.  $120^\circ$



2.  $-240^\circ$



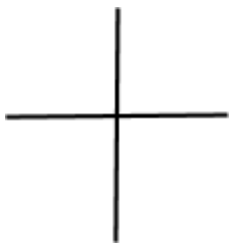
3.  $550^\circ$



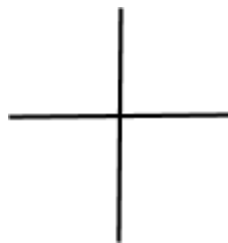
4.  $-270^\circ$



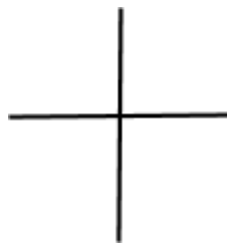
5.  $300^\circ$



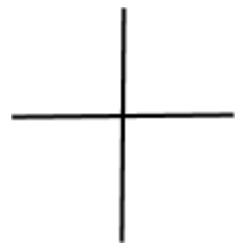
6.  $40^\circ$



7.  $-400^\circ$



8.  $-100^\circ$



Find one positive and one negative coterminal angle that corresponds to the given angle.

9.  $415^\circ$

10.  $-160^\circ$

11.  $-440^\circ$

12.  $55^\circ$

Determine an angle between  $0^\circ$  and  $360^\circ$  that is coterminal to the given angle.

13.  $665^\circ$

14.  $-70^\circ$

15.  $-640^\circ$

16.  $1190^\circ$

### 7.3 - Angles (Radians)

Convert angle in degrees to radians.

1.  $18^\circ$

2.  $150^\circ$

3.  $330^\circ$

4.  $-270^\circ$

Convert each angle in radians to degrees.

5.  $\frac{\pi}{9}$

6.  $\frac{3\pi}{4}$

7.  $\frac{11\pi}{6}$

8.  $-\frac{25\pi}{18}$

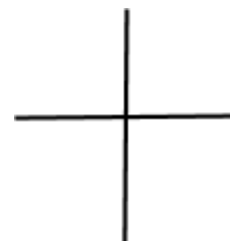
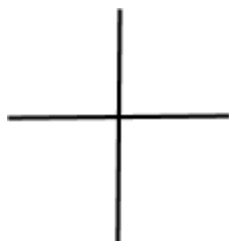
Draw each angle in standard position.

9.  $\frac{5\pi}{6}$

10.  $-\frac{\pi}{4}$

11.  $\frac{10\pi}{3}$

12.  $-\frac{7\pi}{6}$

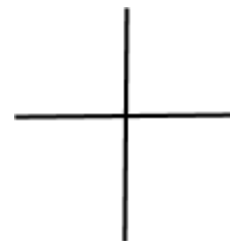
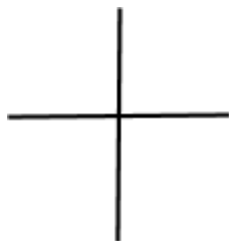
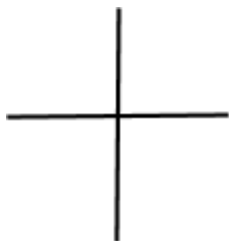
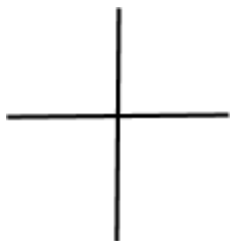


13.  $\pi$

14.  $-\frac{2\pi}{3}$

15.  $-\frac{7\pi}{3}$

16.  $\frac{11\pi}{6}$



#### **7.4 - Exact Values of Sine, Cosine, and Tangent**

Use the unit circle to determine the exact value of each trig expression.

1.  $\sin 45^\circ$

2.  $\cos \frac{3\pi}{4}$

3.  $\sin \frac{8\pi}{3}$

4.  $\tan 60^\circ$

5.  $\sin -210^\circ$

6.  $\tan \pi$

7.  $\cos 570^\circ$

8.  $\cos 0$

9.  $\sin 270^\circ$

10.  $\sin -3\pi$

11.  $\tan 495^\circ$

12.  $\cos -90^\circ$

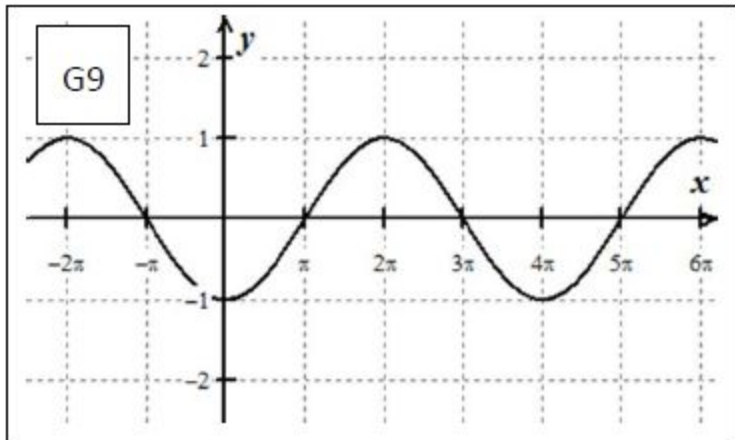
13.  $\tan -\frac{\pi}{6}$

14.  $\sin \frac{7\pi}{6}$

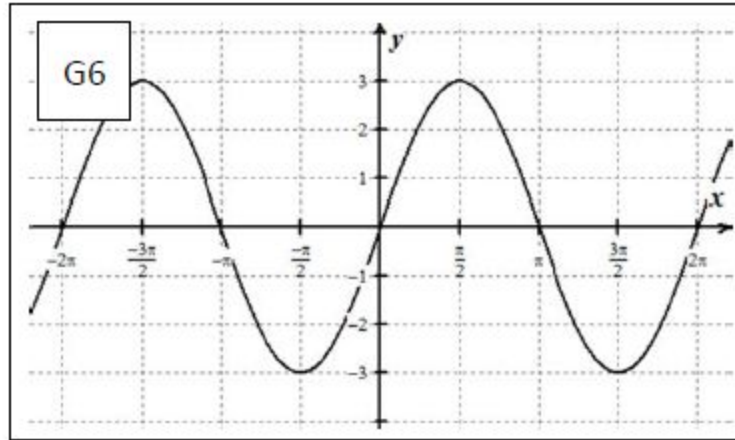
15.  $\sin -855^\circ$

### 7.5 - Graphs of Sine and Cosine

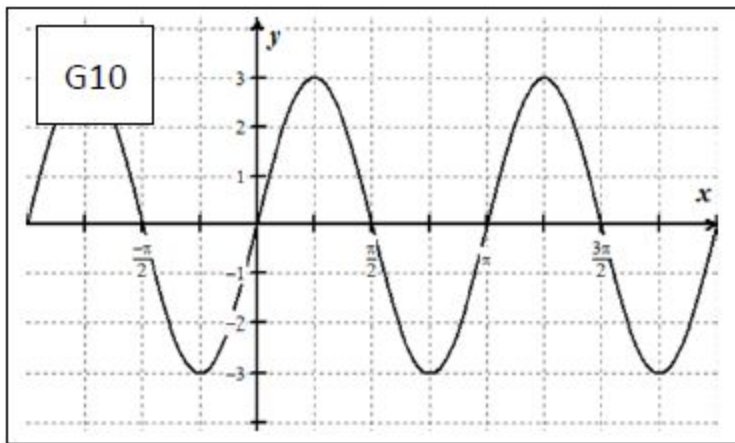
Determine the amplitude and period for each graph.



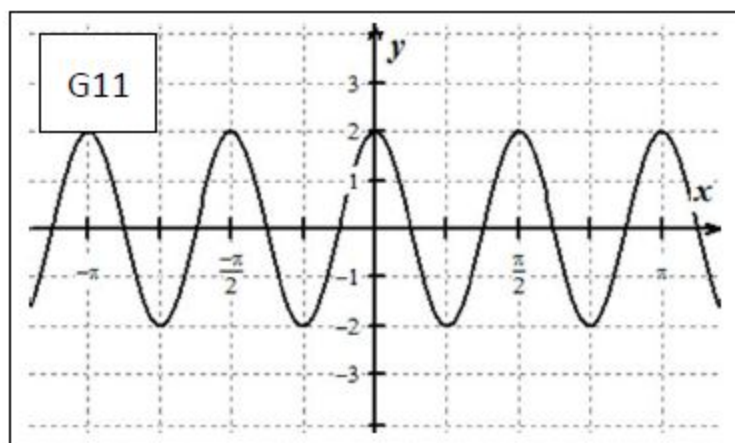
amplitude = \_\_\_\_\_ period = \_\_\_\_\_



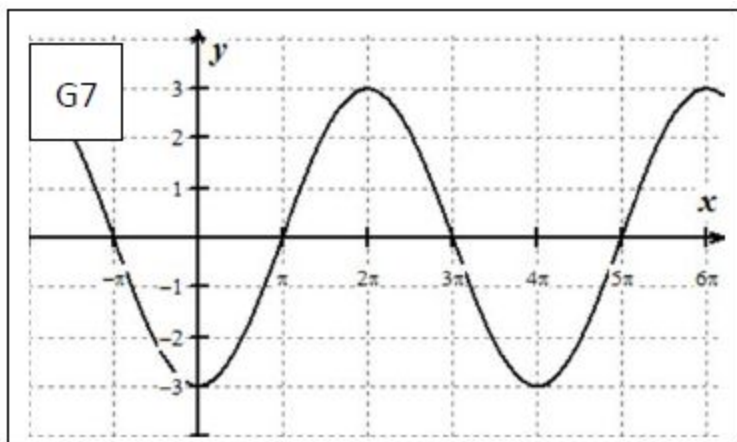
amplitude = \_\_\_\_\_ period = \_\_\_\_\_



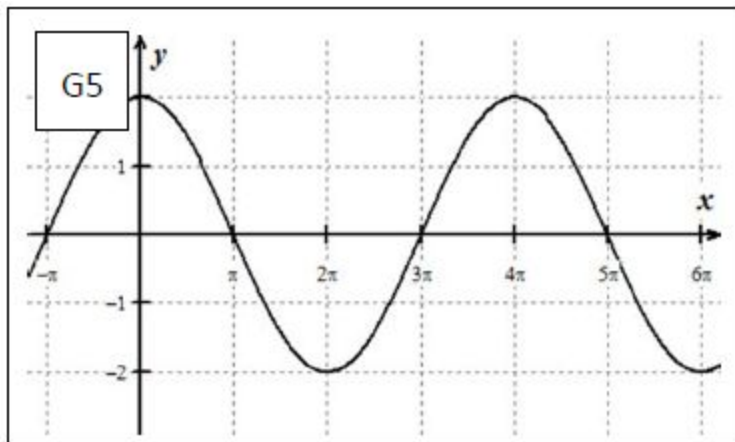
amplitude = \_\_\_\_\_ period = \_\_\_\_\_



amplitude = \_\_\_\_\_ period = \_\_\_\_\_



amplitude = \_\_\_\_\_ period = \_\_\_\_\_



amplitude = \_\_\_\_\_ period = \_\_\_\_\_

## 7.6 - Equations of Sine and Cosine

Determine the amplitude, period, and vertical shift of each sine/cosine function.

	Amplitude	Period	Vertical Shift
1. $y = -4\cos 4x + 7$			
2. $y = 6\sin \frac{1}{3}x - 4$			
3. $y = 7\sin x + 2$			
4. $y = \frac{1}{2}\cos \frac{4}{3}x$			
5. $y = -2\cos 8x - 4$			
6. $y = -\sin 3x + 1$			

7. Given an amplitude of 7, a period of  $4\pi$ , and a vertical shift down 3 units, write the equation of the sine function.

8. Given an amplitude of 3, a period of  $\frac{2\pi}{7}$ , and a vertical shift up 7 units, write the equation of the cosine function.

9. Given an amplitude of 74, a period of  $\frac{\pi}{46}$ , and a vertical shift up 81 units, write the equation of the sine function.