### Lesson 5 Practice Problems

1. The pictures show points on a unit circle labeled A, B, C, and D. Which point is $\left(cos\left(\frac{π}{3}\right),sin\left(\frac{π}{3}\right)\right)$?
	1. 
	2. 
	3. 
	4. 
2. For which angles is the cosine positive? Select **all** that apply.
	1. 0 radians
	2. $\frac{5π}{12}$ radians
	3. $\frac{5π}{6}$ radians
	4. $\frac{3π}{4}$ radians
	5. $\frac{5π}{3}$ radians
3. Mark two angles on the unit circle whose measure $θ$ satisfies $sin\left(θ\right)=-0.4$. How do you know your angles are correct?
* 
	1. For which angle measures, $θ$, between 0 and $2π$ radians is $cos\left(θ\right)=0$? Label the corresponding points on the unit circle.
	+ 
	1. What are the values of $sin\left(x\right)$ for these angle measures?
1. Angle $ABC$ measures $\frac{π}{4}$ radians, and the coordinates of $C$ are about $\left(0.71,0.71\right)$.
* 
	1. The measure of angle $ABD$ is $\frac{3π}{4}$ radians. What are the approximate coordinates of $D$? Explain how you know.
	2. The measure of angle $ABE$ is $\frac{7π}{4}$ radians. What are the approximate coordinates of $E$? Explain how you know.
* (From Unit 6, Lesson 4.)
	1. In which quadrant is the value of the $x$-coordinate of a point on the unit circle always greater than the $y$-coordinate? Explain how you know.
	2. Name 3 angles in this quadrant.
* (From Unit 6, Lesson 4.)
1. Lin is comparing the graph of two functions $g$ and $f$. The function $g$ is given by $g\left(x\right)=f\left(x−2\right)$. Lin thinks the graph of $g$ will be the same as the graph of $f$, translated to the left by 2. Do you agree with Lin? Explain your reasoning.
* (From Unit 5, Lesson 3.)



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