### Lesson 3 Practice Problems

1. Select **all** statements that are true about equilateral triangle $ABC$.
* 
	1. Angles $B$ and $C$ are 60 degrees.
	2. $x=3\sqrt{3}$
	3. $x=6\sqrt{3}$
	4. Triangle $ABD$ is congruent to triangle $ACD$.
	5. $BD$ and $CD$ are both 3 units long.
1. Find the length of each leg.
* 
1. An equilateral triangle has a side length of 10 units. What is its area?
2. Find the lengths of the legs.
* 
* (From Unit 4, Lesson 2.)
1. A square has side length 3 units. What is the length of the diagonal?
	1. 3 units
	2. $\frac{3}{\sqrt{2}}$ units
	3. $3\sqrt{2}$ units
	4. 6 units
* (From Unit 4, Lesson 2.)
1. A step has a height of 5 inches. A ramp starts 4 feet away from the base of the step, making a $5.9^{∘}$ angle with the ground. What can you say about the angle the ramp would make with the ground if the ramp starts farther away from the step?
	1. The angle would decrease.
	2. The angle would remain the same.
	3. The angle would increase.
	4. We cannot determine anything about the angle.
* (From Unit 4, Lesson 1.)
1. Segment $A^{′}B^{′}$ is parallel to segment $AB$.
	1. What is the length of segment $A^{′}B^{′}$?
	2. What is the length of segment $B^{′}B$?
* 
* (From Unit 3, Lesson 11.)
1. Here is triangle $POG$. Match the description of the rotation with the image of $POG$ under that rotation.
* 
* Image 1
* 
* Image 2
* 
* Image 3
* 
* Image 4
* 
	1. Rotate 60 degrees counterclockwise around $P$.
	2. Rotate 60 degrees clockwise around $O$.
	3. Rotate 120 degrees clockwise around $G$.
	4. Rotate 60 degrees clockwise around $G$.
	5. Image 1
	6. Image 2
	7. Image 3
	8. Image 4
* (From Unit 1, Lesson 13.)



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