### Lesson 5 Practice Problems

1. A triangle has sides with lengths 8, 15, and 17.
	1. Verify this is a Pythagorean triple.
	2. Approximate the acute angles in this triangle.
2. Kiran is flying a kite. He gets tired, so he stakes the kite into the ground. The kite is on a string that is 18 feet long and makes a 30 degree angle with the ground. How high is the kite?
* 
1. Triangle $ABC$ has a right angle at $C$. Select **all** measurements which would mean it has a hypotenuse with a length of 10 units.
* 
	1. Angle $A$ is 20 degrees, $BC$ is 2 units
	2. $AC$ is 7 units, $BC$ is 3 units
	3. Angle $B$ is 50 degrees, $BC$ is 4 units
	4. Angle $A$ is 30 degrees, $BC$ is 5 units
	5. $AC$ is 8 units, $BC$ is 6 units
1. What is a reasonable approximation for angle $B$ if the ratio of the adjacent leg divided by the hypotenuse is 0.45?
	1. 27 degrees
	2. 30 degrees
	3. 60 degrees
	4. 63 degrees
* (From Unit 4, Lesson 4.)
1. Estimate the values to complete the table.
* 

|  |  |  |  |
| --- | --- | --- | --- |
| * angle
 | * adjacent leg $÷$ hypotenuse
 | * opposite leg $÷$ hypotenuse
 | * opposite leg $÷$ adjacent leg
 |
| * $A$
 | * 0.31
 | * 0.95
 | * 3.1
 |
| * $C$
 |  |  |  |

* (From Unit 4, Lesson 4.)
1. What is the length of side $AB$?
* 
* (From Unit 4, Lesson 3.)
1. What is the length of the square’s side?
* 
	1. 3 units
	2. $\frac{6}{\sqrt{2}}$ units
	3. $6\sqrt{2}$ units
	4. 12 units
1. Find the lengths of segments $AD$ and $BD$. Then check your answers using a different method.
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* (From Unit 3, Lesson 13.)



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