### Lesson 10 Practice Problems

1. *Technology required.*Find the area of the isosceles trapezoid.
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1. *Technology required.*The sun is 62 degrees above the horizon. A tree casts a shadow that is 12 feet long. How tall is the tree?
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1. *Technology required.*A plane leaves the ground with an elevation angle of 6 degrees. The plane travels 10 miles horizontally.
	1. How high is the plane at the time?
	2. What is the distance of the plane’s path?
2. *Technology required.*Find the missing measurements.
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* (From Unit 4, Lesson 9.)
1. *Technology required.*Ramps in a parking garage need to be both steep and safe. The maximum safe incline for a ramp is 8.5 degrees.
* Is this a safe ramp? Explain or show your reasoning.
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* (From Unit 4, Lesson 9.)
1. Select **all** true equations.
	1. $cos\left(37\right)=sin\left(53\right)$
	2. $tan\left(37\right)=tan\left(53\right)$
	3. $sin\left(37\right)=cos\left(53\right)$
	4. $sin\left(37\right)=sin\left(53\right)$
	5. $cos\left(θ\right)=sin\left(90−θ\right)$
* (From Unit 4, Lesson 8.)
1. *Technology required.*Clare is flying a kite. She gets tired, so she stakes the kite into the ground. The kite is on a string that is 30 ft long and makes a 27 degree angle with the ground. How high is the kite?
	1. 30 ft
	2. 13.6 ft
	3. 26.7 ft
	4. 15.3 ft
* (From Unit 4, Lesson 7.)
1. What is the length of the diagonal?
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* (From Unit 4, Lesson 2.)



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