

Name:

Date:

Your  
Score:

# Trig Word Problem Practice

**Directions:** Carefully read and illustrate each word problem, then use sin, cosine and tangent or their inverse to find the missing side length or angle. Your response should be written as a full sentence.

1. A boy flying a kite lets out 200 feet of string which makes an angle of $43^\circ$ with the ground. If the string is straight, how high above the ground is the kite?	The Drawing:	The Math:
	Response:	
2. A ladder leaning against a wall makes an angle of $80^\circ$ with the ground. If the foot of the ladder is 6 feet from the wall, how high on the wall is the ladder?	The Drawing:	The Math:
	Response:	
3. You observe a hot air balloon 10,000 feet in the air. If the balloon is making a $50^\circ$ angle with the ground, how far away are you from the hot air balloon?	The Drawing:	The Math:
	Response:	
4. A helicopter climbs at an angle of $45^\circ$ with the ground. How much ground distance has it covered when it has reached an altitude of 5,000 feet?	The Drawing:	The Math:
	Response:	

<p>5. A 5ft shovel is leaning onto a fence. The handle of the shovel makes a <math>37^\circ</math> angle with the fence. How far up the fence does the ladder reach?</p>	<p>The Drawing:</p>	<p>The Math:</p>
<p>Response:</p>		
<p>6. Keon's sister is flying a kite. Her kite string makes an angle of <math>45^\circ</math> with the ground. If Keon is standing 400 feet from a point on the ground directly below the kite, find the length of the kite string if he is standing 300 feet away from his sister.</p>	<p>The Drawing:</p>	<p>The Math:</p>
<p>Response:</p>		
<p>7. A man is standing 10 feet from his leashed dog. If the mans leash and the dog create a <math>30^\circ</math> angle, how long is the leash?</p>	<p>The Drawing:</p>	<p>The Math:</p>
<p>Response:</p>		
<p>8. A 90 ft piece of wire is tied to a pole and connected to a stake in the ground 50 ft away from the pole. Find the angle that the wire makes with the ground.</p>	<p>The Drawing:</p>	<p>The Math:</p>
<p>Response:</p>		
<p>9. A ladder leans against a wall. The top of the ladder reaches 18 ft above the ground. The foot of the ladder is 7 feet from the building. Find the angle that the top of the ladder makes with the wall.</p>	<p>The Drawing:</p>	<p>The Math:</p>
<p>Response:</p>		