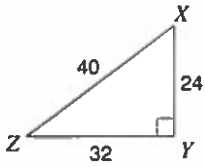


Tangent Ratio Worksheet

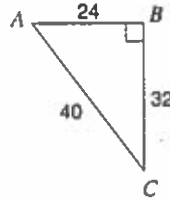
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Find the value of each trigonometric ratio.

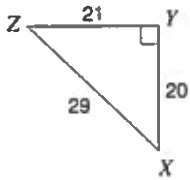
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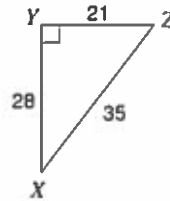
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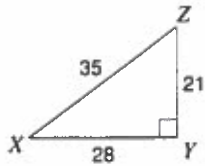
3) $\tan X$



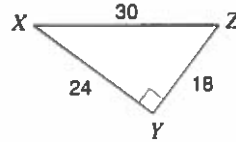
4) $\tan Z$



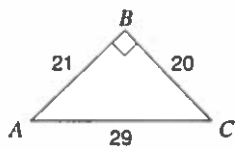
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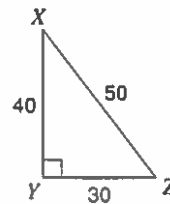
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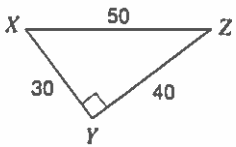
7) $\tan A$



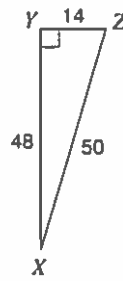
8) $\tan Z$



9) $\tan Z$

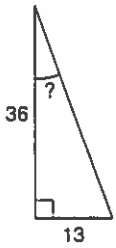


10) $\tan X$

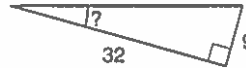


Find the measure of the indicated angle to the nearest degree.

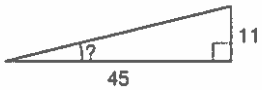
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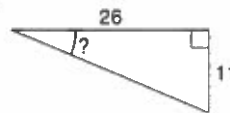
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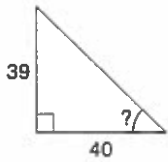
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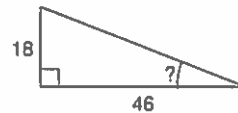
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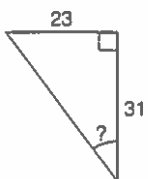
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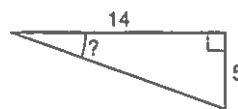
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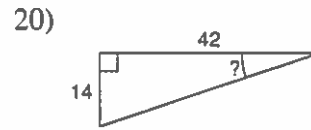
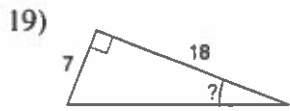


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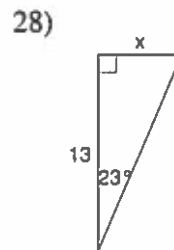
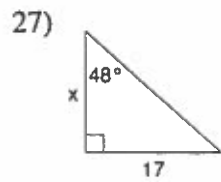
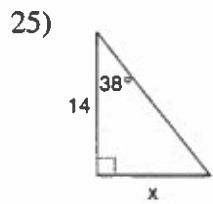
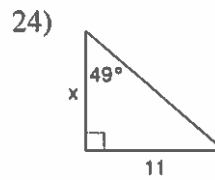
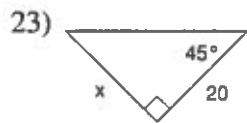
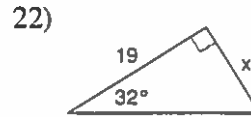
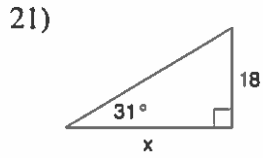


18)





Find the missing side. Round to the nearest tenth.



For Tuesday

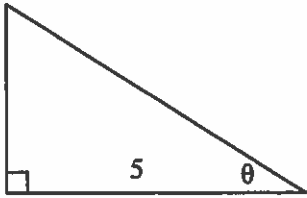
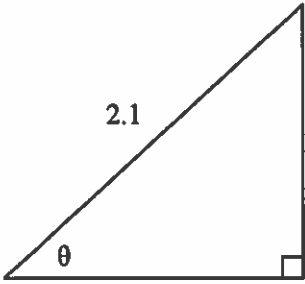
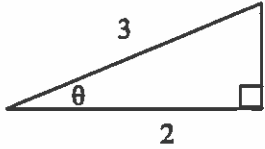
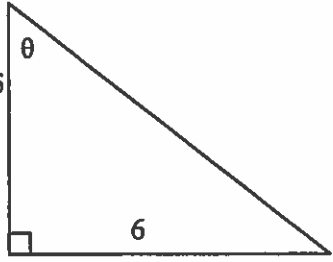
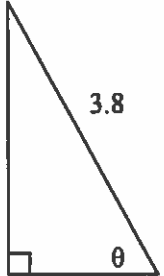
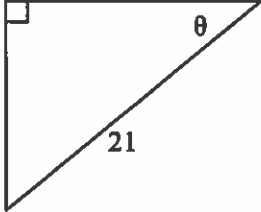
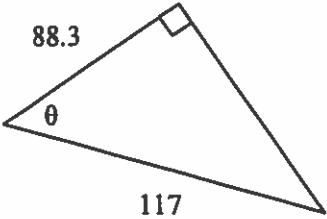
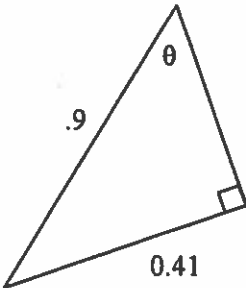
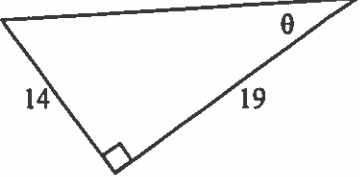
Name: _____

Trigonometry Practice-Makes-Perfect Help Sheet

Part I

Find each unknown angle θ for each of these right triangles.

Note: the drawings are *not* to scale. Please show your work.

<p>1. Ex: $\tan \theta = \frac{3.1}{5}$, so $\theta = \tan^{-1}\left(\frac{3.1}{5}\right)$, thus $\theta = 31.8^\circ$</p> 	<p>2.</p> 	<p>3.</p> 
<p>4.</p> 	<p>5.</p> 	<p>6.</p> 
<p>7.</p> 	<p>8.</p> 	<p>9.</p> 

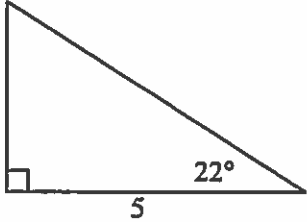
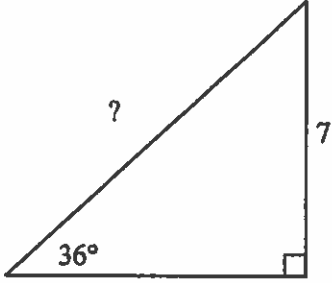
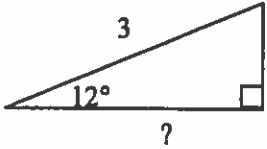
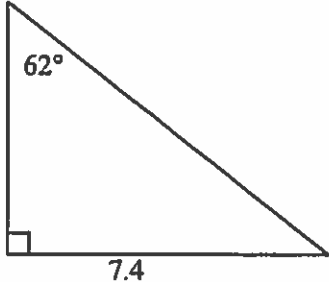
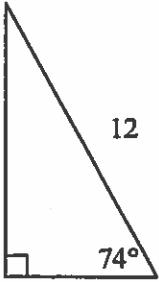
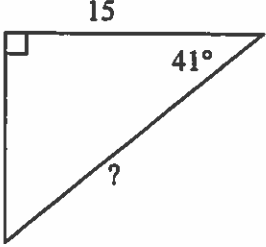
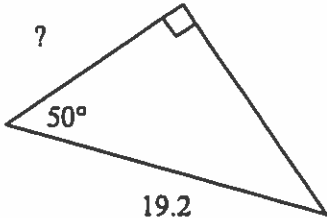
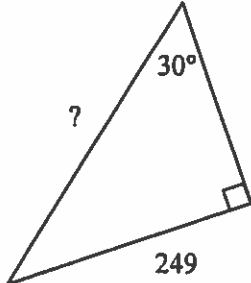
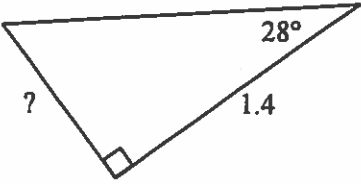
Answers:

Trigonometry Practice-Makes-Perfect Help Sheet

Part II

Find each unknown quantity '?' for each of these right triangles.

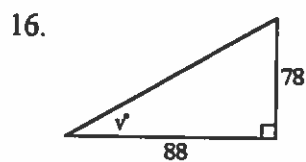
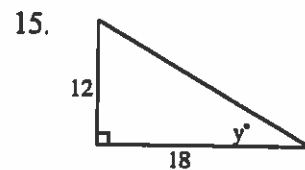
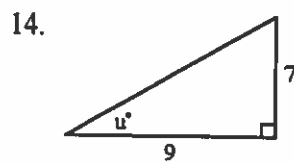
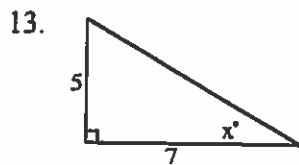
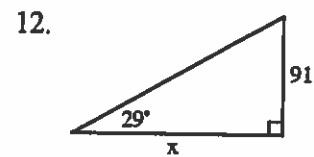
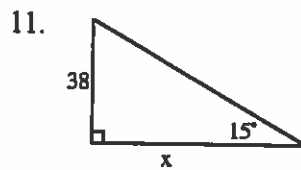
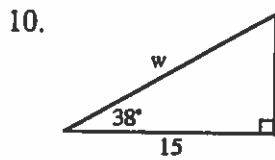
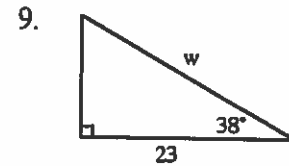
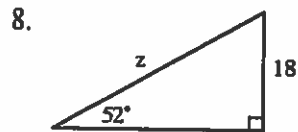
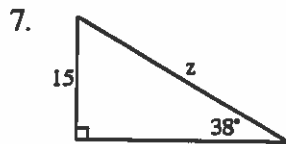
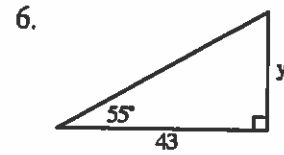
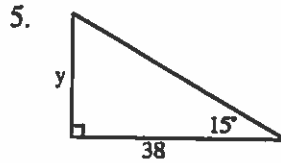
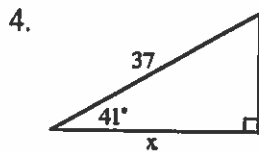
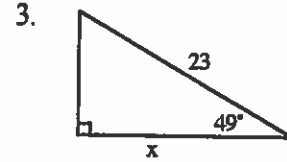
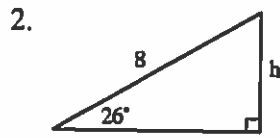
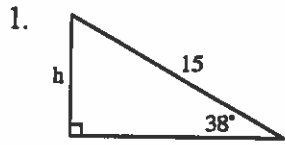
Note: the drawings are *not* to scale.

<p>1.</p> 	<p>2.</p> 	<p>3.</p> 
<p>4.</p> 	<p>5.</p> 	<p>6.</p> 
<p>7.</p> 	<p>8.</p> 	<p>9.</p> 

Answers:

For Wednesday

Use trigonometric ratios to solve for the variable in each figure below.



Draw a diagram and use trigonometric ratios to solve each of the following problems.

17. Juanito is flying a kite at the park and realizes that all 500 feet of string are out. Margie measures the angle of the string with the ground with her clinometer and finds it to be 42.5° . How high is Juanito's kite above the ground?
18. Nell's kite has a 350 foot string. When it is completely out, Ian measures the angle to be 47.5° . How far would Ian need to walk to be directly under the kite?
19. Mayfield High School's flagpole is 15 feet high. Using a clinometer, Tamara measured an angle of 11.3° to the top of the pole. Tamara is 62 inches tall. How far from the flagpole is Tamara standing?
20. Tamara took another sighting of the top of the flagpole from a different position. This time the angle is 58.4° . If everything else is the same, how far from the flagpole is Tamara standing?

For Thursday

Math 11UE - Mr. Duncan

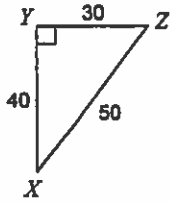
Name _____

10.1 Sin, Cos, and Tan - Practice Problems

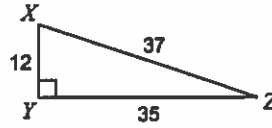
Date _____

Find the value of each trigonometric ratio.

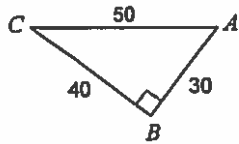
1) $\sin Z$



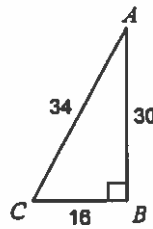
2) $\sin Z$



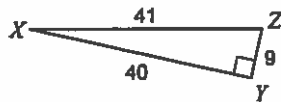
3) $\cos A$



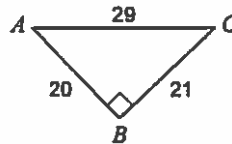
4) $\cos C$



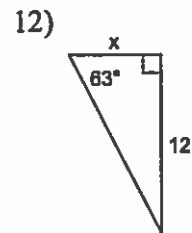
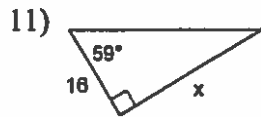
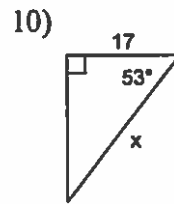
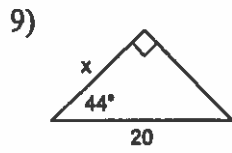
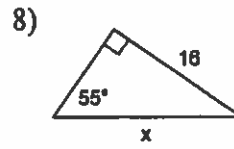
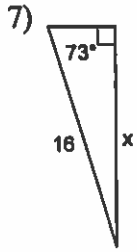
5) $\tan Z$



6) $\tan A$

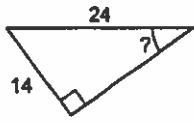


Find the missing side. Round to the nearest tenth.

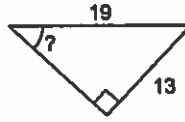


Find the measure of the indicated angle to the nearest degree.

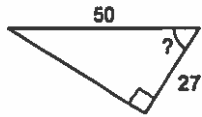
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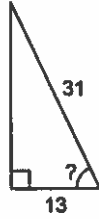
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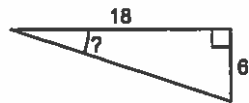
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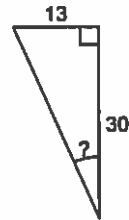
16)



17)



18)



Solve the following word problems. For each question, draw a diagram to help you.

- 19) An airplane is flying at an altitude of 6000 m over the ocean directly toward a coastline. At a certain time, the angle of depression to the coastline from the airplane is 14° . How much farther (to the nearest kilometer) does the airplane have to fly before it is directly above the coastline?

For Friday

- 20) From a horizontal distance of 80.0 m, the angle of elevation to the top of a flagpole is 18° . Calculate the height of the flagpole to the nearest tenth of a metre.
- 21) A 9.0 m ladder rests against the side of a wall. The bottom of the ladder is 1.5 m from the base of the wall. Determine the measure of the angle between the ladder and the ground, to the nearest degree.
- 22) The angle of elevation of the sun is 68° when a tree casts a shadow 14.3 m long. How tall is the tree, to the nearest tenth of a metre?
- 23) A wheelchair ramp is 4.2 m long. It rises 0.7 m. What is its angle of inclination to the nearest degree?
- 24) A person flying a kite has released 176 m of string. The string makes an angle of 27° with the ground. How high is the kite? How far away is the kite horizontally? Answer to the nearest metre.