

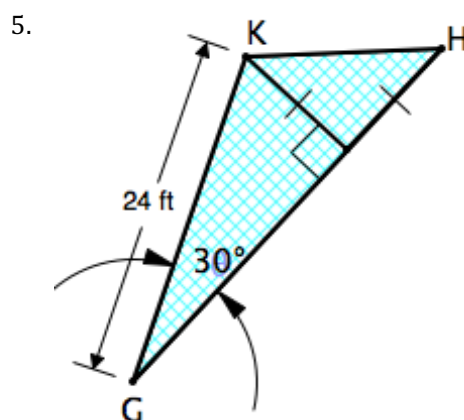
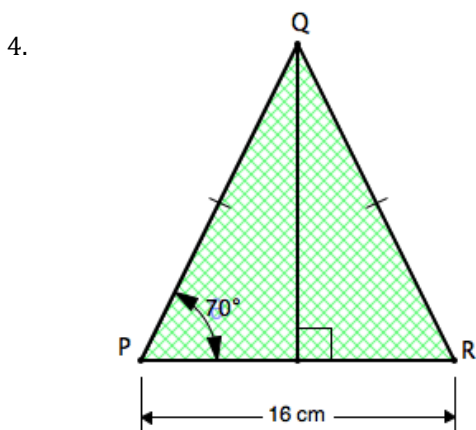
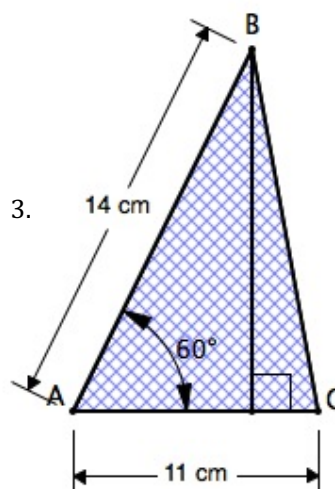
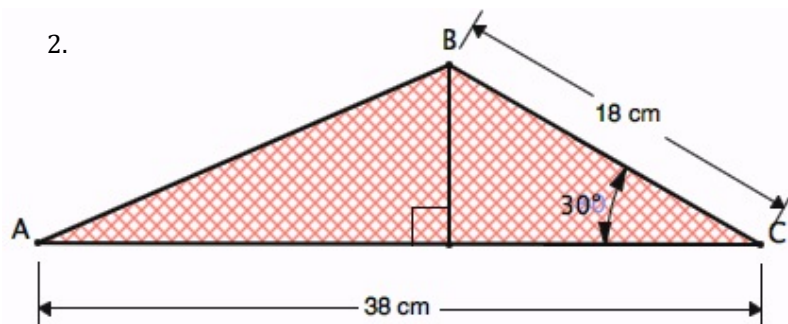
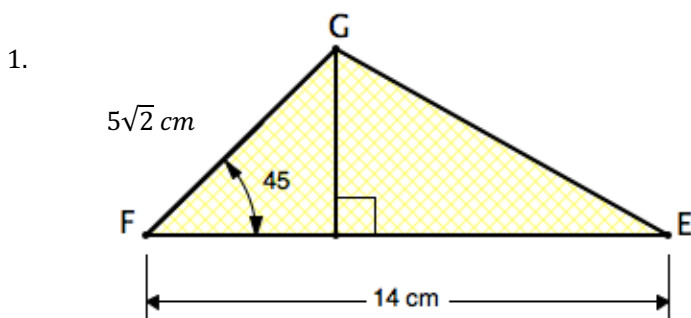
READY, SET, GO!

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**READY**

Topic: Finding area of triangles

Find the area of each triangle.  $A = \frac{1}{2}bh$



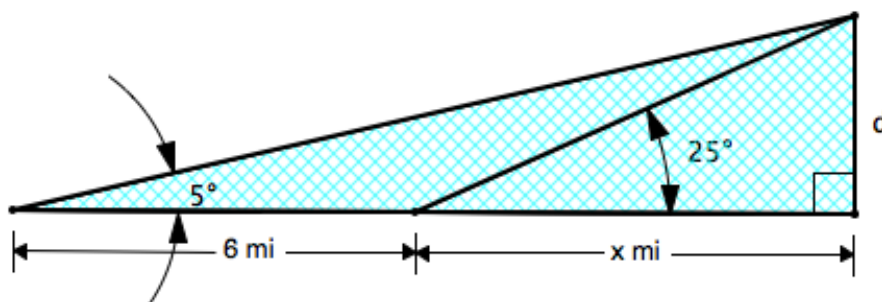
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SET

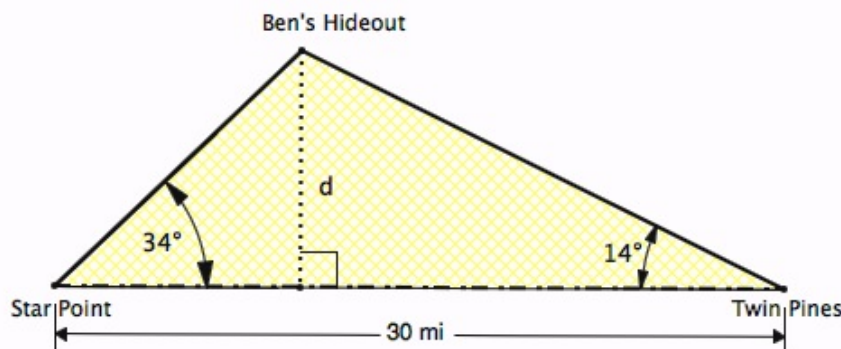
Topic: Using right triangle trig to solve triangles

Solve the following application problems using right triangle trigonometry.

6. While traveling across a flat stretch of desert, Joey and Holly make note of a mountain peak in the distance that seems to be directly in front of them. They estimate the angle of elevation to the peak as  $5^\circ$ . After traveling 6 miles towards the mountain the angle of elevation is  $25^\circ$ . Approximate the height of the mountain in miles and in feet. **5,280ft = 1 mile** (While figuring, use at least 4 decimal places.)



7. The Star Point Ranger Station and the Twin Pines Ranger Station are 30 miles apart along a straight scenic road. Each station gets word of a cabin fire in a remote area known as Ben's Hideout. A straight path from Star Point to the fire makes an angle of  $34^\circ$  with the road, while a straight path from Twin Pines makes an angle of  $14^\circ$  with the road. Find the distance  $d$  of the fire from the road.



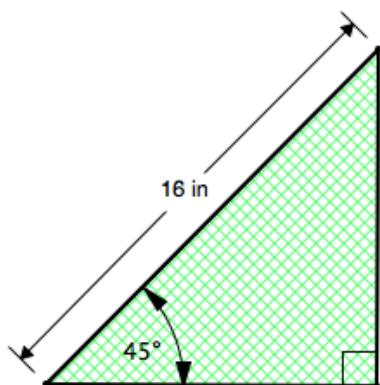
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GO

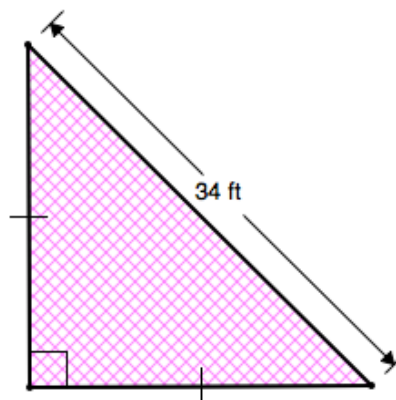
Topic: Recalling measures in special right triangles

Fill in the missing sides and angles in the right triangles. Write answers in simplified radical form. Do NOT use a calculator.

8.

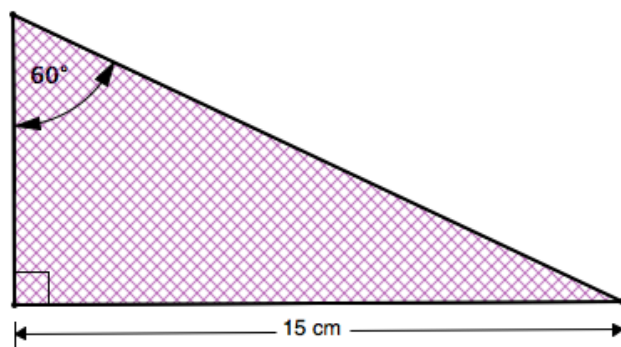


9.

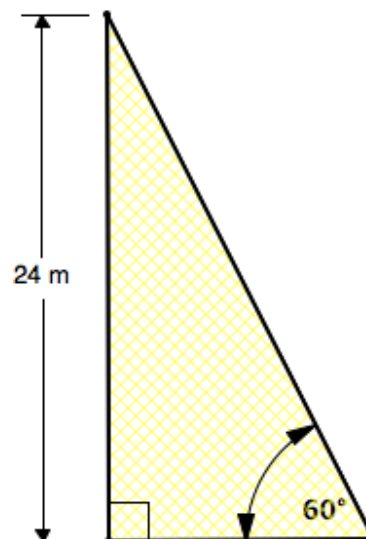


10. Write a rule for finding the sides of an isosceles right triangle when you know the hypotenuse and the measure of the hypotenuse does NOT show a  $\sqrt{2}$ .

11.



12.

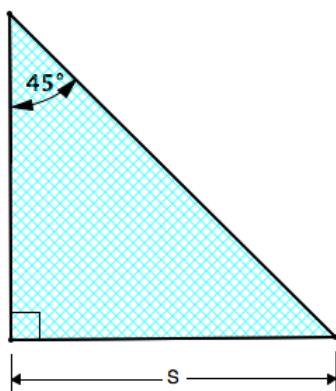


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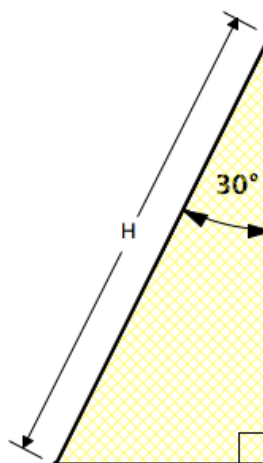
13. Write a rule for finding the missing sides in a  $30^\circ - 60^\circ - 90^\circ$  when you know the side opposite the  $60^\circ$  angle but the measurement doesn't show a  $\sqrt{3}$ .

Fill in the missing measurements.

14.



15.



Fill in the ratios for the given functions. Do not use a calculator. Answers should be in simplified radical form.

16.

$\sin 45^\circ =$	
$\cos 45^\circ =$	
$\tan 45^\circ =$	

17.

$\sin 30^\circ =$	
$\cos 30^\circ =$	
$\tan 30^\circ =$	

18.

$\sin 60^\circ =$	
$\cos 60^\circ =$	
$\tan 60^\circ =$	

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