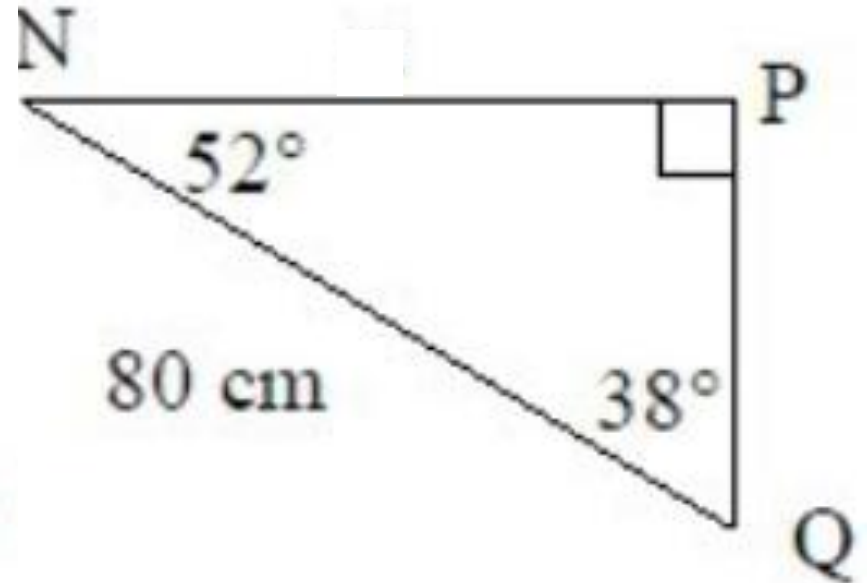
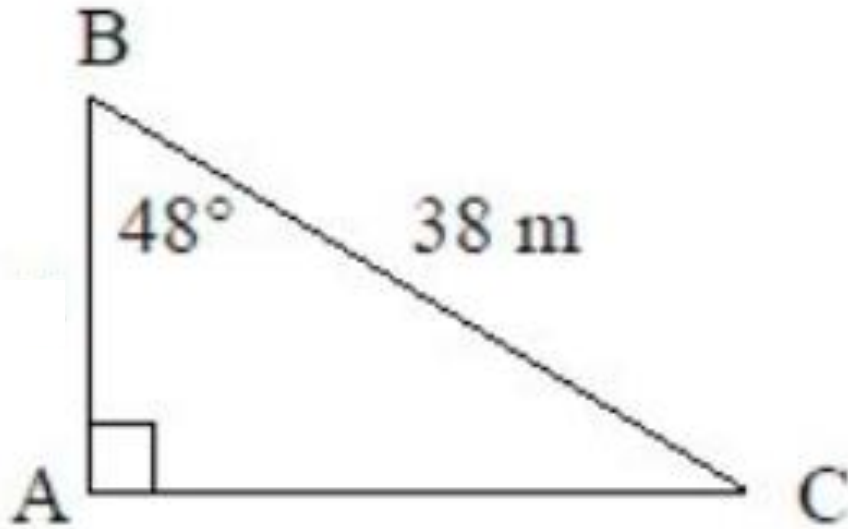


Thursday, April 18, 2019

- Warm-up
 - Copy the triangles on your paper
 - Mark an angle of interest (the one you know)
 - Label the sides (hypotenuse, opposite, adjacent)



- Finding a missing side

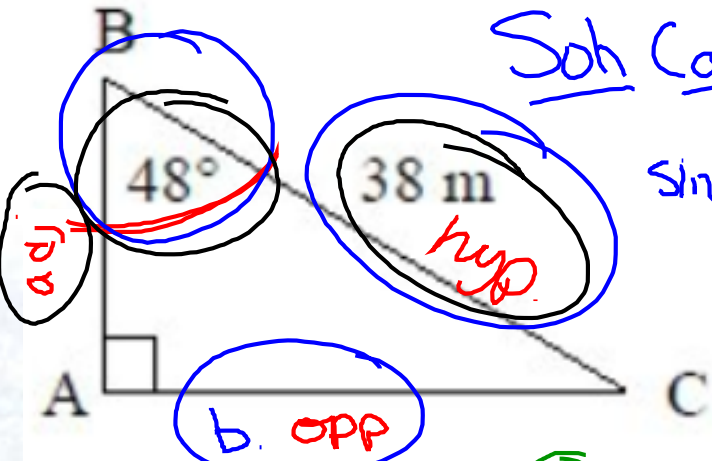
Objectives

Content: I will use trigonometric ratios to solve triangle problems with missing angles and sides.

Social: I will participate in class activities and work through frustration.

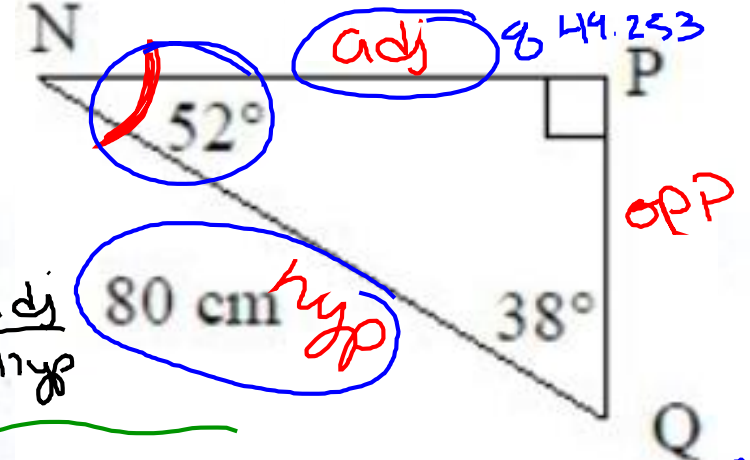
Language: I will translate word problems into a picture so that trigonometric ratios are easier to use.

Soh Cah Toa



$$\sin \theta = \frac{\text{opp}}{\text{hyp}}$$

$$\cos \theta = \frac{\text{adj}}{\text{hyp}}$$



$$38 \cdot \sin(48) = \frac{b}{38}$$

$$28.239_m = b$$

$$38 \cdot \cos(48) = \frac{c}{38}$$

$$25.426_m = c$$

① label everything

② Mark what I

know + need to know
angle of interest & 2 sides

③ Choose ratio
sin, cos, tan

④ Substitute

⑤ Solve

$$80 \cdot \cos(52) = \frac{9}{80}$$

$$49.253 = 9$$

$$\sin(52) = \frac{n}{80}$$

$$63.040_{cm} = n$$

Using these ratios...

Objectives

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c. $\angle A = 31^\circ$, $b = 8$ in.



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d. $\angle A = 70^\circ$, $c = 14$ cm



Objectives

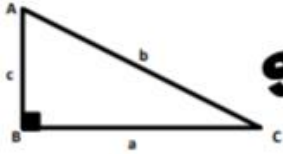
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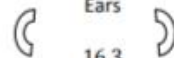





Soh Cah Toa

snowman Math

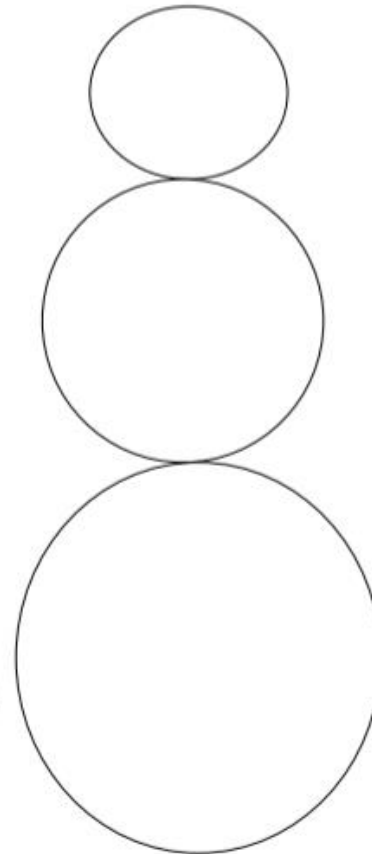


Use the given information to find the missing side in each triangle.

Round your answer to the nearest tenth. Circle the correct answer then color your snowman correctly.

1. $m\angle A = 71^\circ, a = 16, c = ?$	Top Hat 5.5 	Toboggan 3.9 
2. $m\angle C = 19^\circ, b = 12, c = ?$	Eyelashes 2.1 	No Eyelashes 3.9 
3. $m\angle A = 62^\circ, a = 14, c = ?$	Round Nose 7.4 	Triangular Nose 9.4 
4. $m\angle A = 59^\circ, b = 14, a = ?$	Mouth with 4 dots 12.0 	Mouth with 3 dots 16.3 
5. $m\angle C = 49^\circ, b = 12, a = ?$	Striped Scarf 7.9 	Solid Scarf 11.7 
6. $m\angle A = 69^\circ, c = 19, a = ?$	2 buttons on belly 50.4 	3 buttons on belly 49.5 
7. $m\angle A = 34^\circ, b = 19, c = ?$	Ears 16.3 	No ears 15.8
8. $m\angle A = 17^\circ, b = 20, a = ?$	Glasses 5.8 	No glasses 8.1
9. $m\angle C = 61^\circ, a = 34, b = ?$	Right Hand Up 70.1 	Right Hand Down 85.9 
10. $m\angle A = 47^\circ, c = 37, b = ?$	Left Hand Up 68.4 	Left Hand Down 54.3 

Draw the Δ
Label the Δ
Find missing
Side



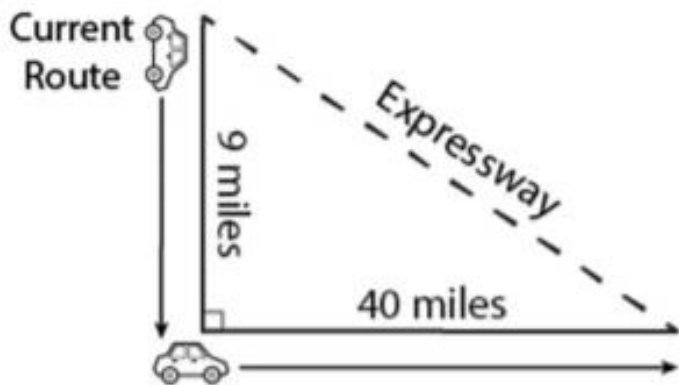
Objectives

Content: I will use trigonometric ratios to solve triangle problems with missing angles and sides.

Social: I will participate in class activities and work through frustration.

Language: I will translate word problems into a picture so that trigonometric ratios are easier to use.

Exit Slip



Note: Figure not drawn to scale.

The figure shows the route that Max currently takes to work and back home every day. Assuming an average gas consumption of 20 miles per gallon and a 5-day workweek, how many gallons of gas will Max save per week by taking the expressway to and from work each day instead of his current route?

- A. 2
- B. 4
- C. 8
- D. 10.25

Objectives

Content: I will describe the relationships between sides and angles of a right triangle using trigonometry.

Social: I will listen well and take good notes.

Language: I will clearly write vocabulary in a way that I can understand.