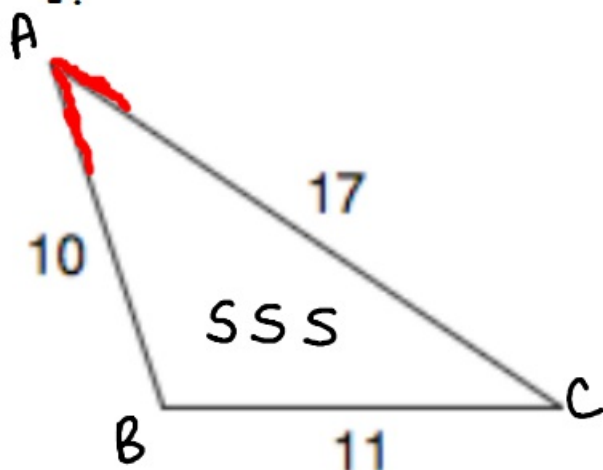


Do Now

Solve for the highlighted angle or side

1.



$$a^2 = b^2 + c^2 - 2bc \cos A$$

$$11^2 = 17^2 + 10^2 - 2(17)(10)\cos A$$

$$121 = 289 + 100 - 340\cos A$$

$$121 = \cancel{389} - 340\cos A$$

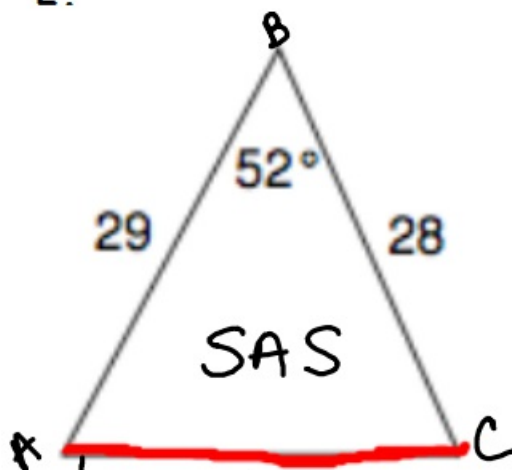
$$\frac{-268}{-340} = \frac{-340\cos A}{-340}$$

$$\frac{-268}{-340} = \cos A$$

$$\cos^{-1}\left(\frac{268}{340}\right) = A$$

$$\boxed{38^\circ = A}$$

2.



$$b^2 = a^2 + c^2 - 2ac \cos B$$

$$b^2 = 28^2 + 29^2 - 2(28)(29)\cos 52$$

$$b^2 = 625.17$$

$$b = \sqrt{625.17}$$

$$\boxed{b \approx 25}$$

Ah-Maze-ing!

Law of Sines & Cosines Maze

Round all angles to the nearest degree and all sides to one decimal. Use a colored pencil to trace the correct path through the maze.

Start

Triangle 1: Sides 28, 21.6, x ; Angle 48°

Triangle 2: Sides x , 29, 34; Angle 111°

Triangle 3: Sides 26, 28, 30; Angle x°

Triangle 4: Sides 19.1, x , 56; Angle 34°

Triangle 5: Sides 12, 12, x ; Angle 83°

Triangle 6: Sides 27, 49.5, x ; Angle 93°

Triangle 7: Sides 10, 14, 9.6; Angle x°

Triangle 8: Sides x , 166, 123; Angle 79°

Triangle 9: Sides 12, 16, 11; Angle x°

Triangle 10: Sides 18, 11, x ; Angle 49°

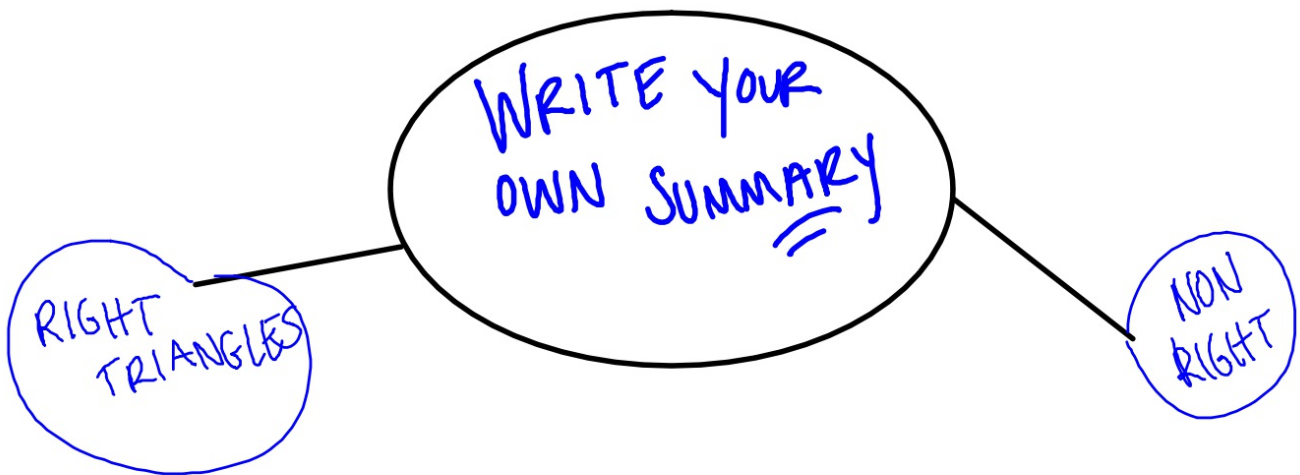
Triangle 11: Sides 15, 17, x ; Angle 62°

Triangle 12: Sides 16, x , 17; Angles 58° , 40°

Finish

Corridor numbers: 35, 52, 63, 32.7, 50.3, 48, 67, 65, 43, 12.9, 33, 42.3, 39, 19.8, 21.2, 40.6, 104, 16.6, 16.2, 186.8, 88, 27, 16.3

Unit 4 Summary



Trigonometry Brochure!

- Summarize all 3 parts and types of triangle problems
- Use examples
- Include the formulas!

Mixed Review Problems

- Trigonometry ALL objectives
- End of Unit 4
- Starting Unit 5 Tomorrow

4.3 Trig Word Problems

Directions: Set up each word problem and solve. Use SOHCAHTOA, Law of Sines, or Law of Cosines.

Daniel is standing 36 feet away from the base of a building, and he looks up at a 50° angle of elevation to a point on the edge of building's roof. To the nearest foot, how tall is the building?

A pilot is traveling at a height of 35,000 feet above level ground. According to her GPS, she is 40 miles away from the airport runway, as measured along the ground. At what angle of depression will she need to look down to spot the runway ahead?

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Directions: Set up each word problem and solve. Use SOHCAHTOA, Law of Sines, or Law of Cosines.

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<p>A flagpole is situated on the peak of a hill. The angle of the flagpole with the hill is 108°. The flagpole's shadow reaches 14 feet down the hill. The angle of depression of the sun on the flagpole is 31°. What is the height of the flagpole?</p>	<p>Quantae and Laina are walking toward each other on a path through the park. A hot air balloon is directly above the path between them. Quantae sees the balloon when looking east at an angle of elevation of 46°. Laina sees the balloon looking west at an angle of elevation of 72°. If Quantae and Laina are 55 yards apart, how far is the balloon from Quantae?</p>

ORGANIZE YOUR STUFF!

- **Binders**
- **Journals**
- **EVERYTHING**

Exit Prompt

Write a paragraph summarizing when to use SOHCAHTOA, Law of Sines, and Law of Cosines.

Be specific. Use examples when needed.

Kahoot Review!

<https://play.kahoot.it/#/k/5f2f7d40-b5c1-4f81-8400-c251d47551fa>