

READY, SET, GO!	Name	Period	Date
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READY

Topic: Recalling circumference and area of a circle

Use the given information to find the indicated value. Leave π in your answer. Include the correct unit.

- | | | |
|--|---|--|
| 1. radius = 3 ft
circumference:
area: | 2. diameter = 14 cm
circumference:
area: | 3. circumference = 38π km
radius:
area: |
| 4. area = 49π in ²
diameter:
circumference: | 5. circumference = 15π mi
radius:
area: | 6. area = 121π m ²
radius:
circumference: |

Solve for the missing angle. Round your answers to the nearest degree.

(Hint: In problems 10, 11, and 12, get the trig function alone. Then solve for θ .)

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|--------------------------------|--------------------------------|--------------------------------|
| 7. $\cos \theta = \frac{1}{6}$ | 8. $\tan \theta = \frac{2}{3}$ | 9. $\sin \theta = \frac{7}{8}$ |
| 10. $5 \sin \theta - 2 = 0$ | 11. $7 \cos \theta - 6 = 0$ | 12. $4 \tan \theta - 1 = 0$ |

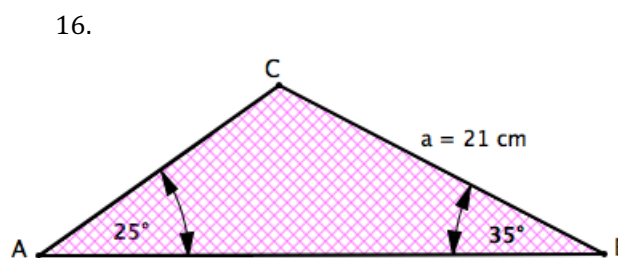
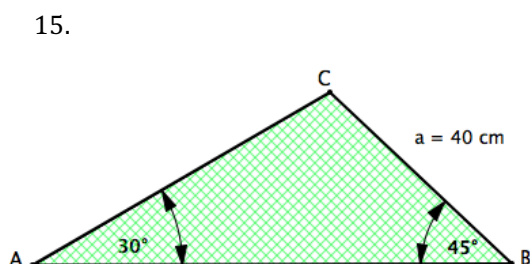
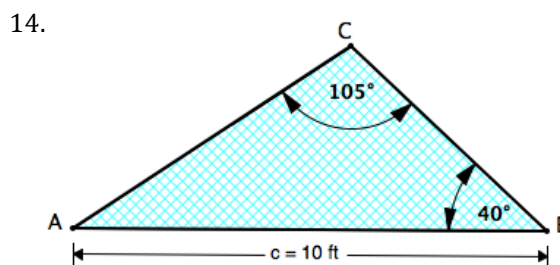
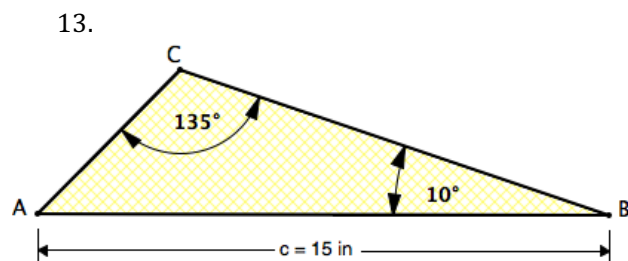
SET

Topic: Using the Laws of sine and cosine to solve triangles

<p>Law of Sines: If ABC is a triangle with sides a, b, and c, then</p> $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$ <p>or it can be written as:</p> $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$	<p>Law of Cosines: If ABC is a triangle with sides a, b, and c, then</p> $a^2 = b^2 + c^2 - 2bc \cos A$ $b^2 = a^2 + c^2 - 2ac \cos B$ $c^2 = a^2 + b^2 - 2ab \cos C$
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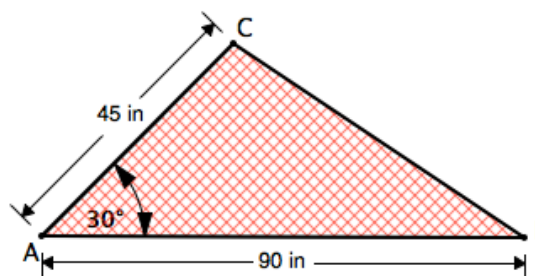
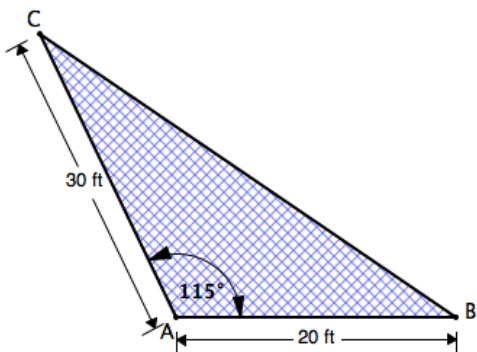
Use the *Law of sines* to solve each triangle.



17. What information do you need in order to use the *Law of sines*?

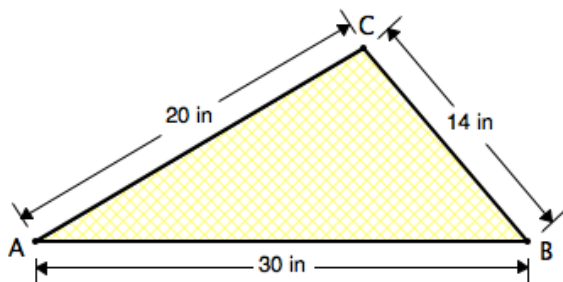
18. Use the *Law of cosines* to find the remaining angles and side of the triangle.

19. Use the *Law of cosines* to find the remaining angles and side of the triangle.

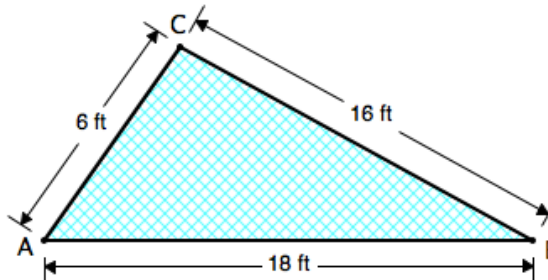


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20. Use the *Law of cosines* to find the three angles of the triangle.



21. Use the *Law of cosines* to find the three angles of the triangle.



22. What information do you need in order to use the *Law of cosines* to solve a triangle?

GO

Topic: Recalling the trig ratios of the special right triangles

Fill in the missing angle. Do NOT use a calculator.

23. $\sin \theta = \frac{\sqrt{2}}{2}$	24. $\tan \theta = \sqrt{3}$	25. $\cos \theta = \frac{1}{2}$
26. $\sin \theta = \frac{\sqrt{3}}{2}$	27. $\tan \theta = 1$	28. $\tan \theta = \frac{\sqrt{3}}{3}$
29. $\sin \theta = \frac{1}{2}$	30. $\cos \theta = \frac{\sqrt{2}}{2}$	31. $\cos \theta = \frac{\sqrt{3}}{2}$

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