

Trigonometry - Law of Sines, Cosines - Intro

- 1 Solve for the trigonometry ratio given the values

$$\begin{aligned} \text{adj} &= 8 \\ \text{hyp} &= 13.9 \\ \text{opp} &= 11.4 \\ \cos(\beta) &= \end{aligned}$$

- | | |
|--------------------------|------------------------|
| A $\cos(\beta) = 129.04$ | B $\cos(\beta) = 0.22$ |
| C $\cos(\beta) = 0.58$ | D $\cos(\beta) = 0.89$ |
| E $\cos(\beta) = 0.85$ | |

- 2 Solve for the angle in degrees given the values

$$\begin{aligned} \text{opp} &= 3.5 \\ \text{adj} &= 5 \\ \lambda &= ?^\circ \end{aligned}$$

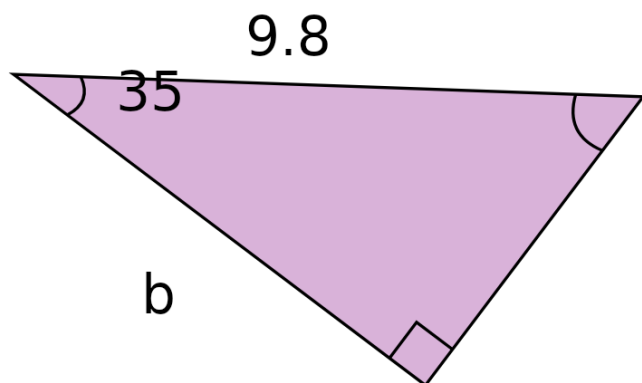
- | | |
|------------------------|------------------------|
| A $\lambda = 35^\circ$ | B $\lambda = 50^\circ$ |
| C $\lambda = 20^\circ$ | D $\lambda = 40^\circ$ |
| E $\lambda = 45^\circ$ | |

- 3 Solve for the side indicated

$$\begin{aligned} \alpha &= 50^\circ \\ \text{hyp} &= 6.2 \\ \text{opp} &= ? \end{aligned}$$

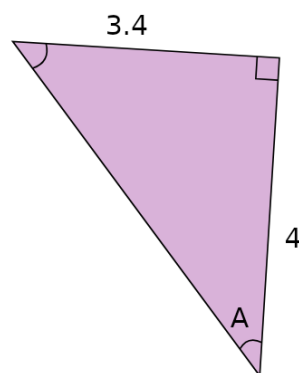
- | | |
|----------------------|----------------------|
| A $\text{opp} = 6.2$ | B $\text{opp} = 6.6$ |
| C $\text{opp} = 4.7$ | D $\text{opp} = 4.3$ |
| E $\text{opp} = 5.7$ | F $\text{opp} = 3.8$ |

- 5 Solve for the side length with trigonometry

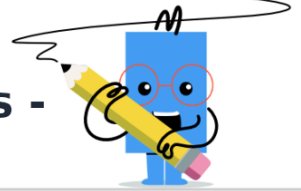


- | | |
|-------------|--------------|
| A $b = 8.8$ | B $b = 10.4$ |
| C $b = 6.4$ | D $b = 5.6$ |
| E $b = 9.6$ | F $b = 8.0$ |

- 4 Solve for the angle in degrees with trigonometry

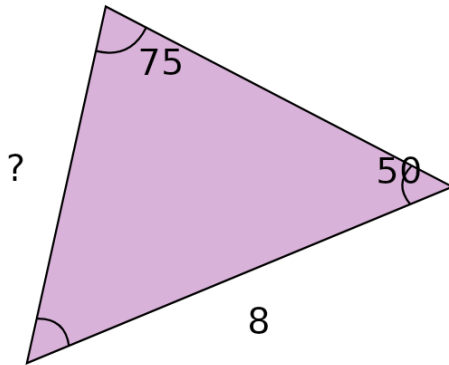


- | | |
|------------------|------------------|
| A $A = 40^\circ$ | B $A = 50^\circ$ |
| C $A = 45^\circ$ | D $A = 35^\circ$ |
| E $A = 25^\circ$ | |



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- 6 Select the right formula for the side length indicated



A $8 \cdot \frac{\sin(75)}{\sin(8)}$

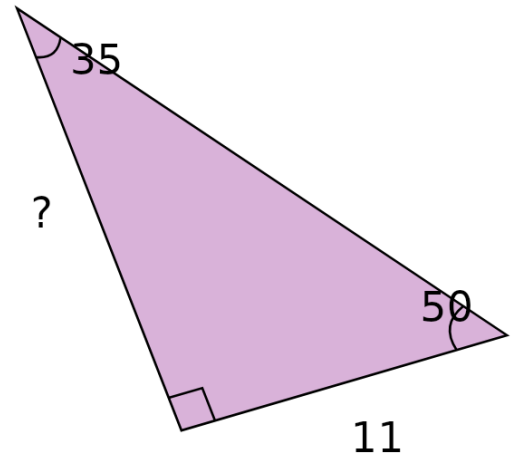
B $8 \cdot \frac{\sin(8)}{\sin(75)}$

C $8 \cdot \frac{\sin(50)}{\sin(100)}$

D $8 \cdot \frac{\sin(75)}{\sin(50)}$

E $8 \cdot \frac{\sin(50)}{\sin(75)}$

- 7 Solve for the side length indicated



A 20.6

B 14.7

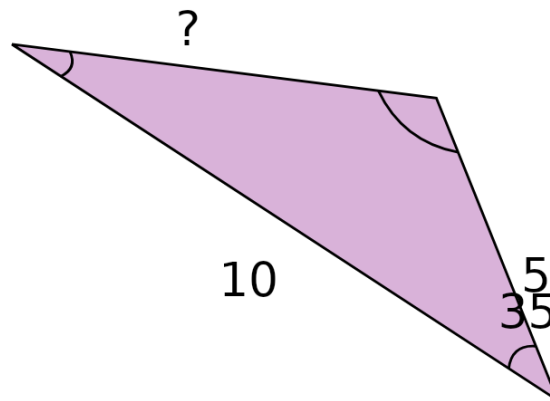
C 5.9

D 0

E 11.8

F 26.4

- 8 Select the right formula to calculate the side length indicated



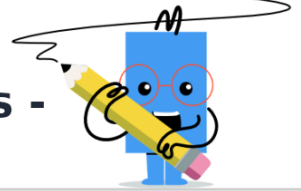
A $\sqrt{10^2 + 5^2 - 2 \cdot 10 \cdot 5 \cdot \cos(35)}$

B $\sqrt{10^2 + 35^2 - 2 \cdot 10 \cdot 35 \cdot \cos(5)}$

C $\sqrt{10^2 + 5^2 - 2 \cdot 10 \cdot 5 \cdot \cos(10)}$

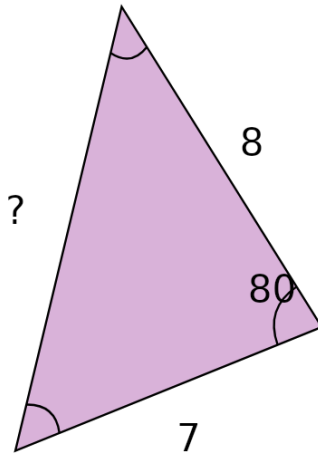
D $\sqrt{10^2 + 10^2 - 2 \cdot 10 \cdot 10 \cdot \cos(5)}$

E $\sqrt{10^2 + 70^2 - 2 \cdot 10 \cdot 70 \cdot \cos(35)}$



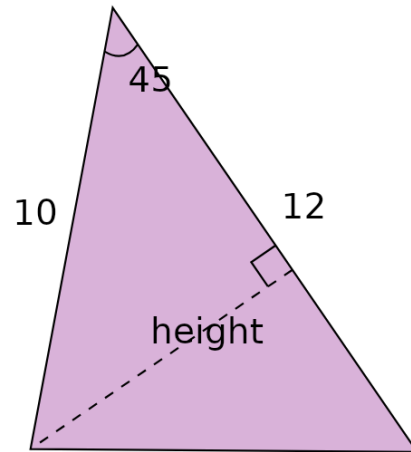
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9 Solve for the side length indicated



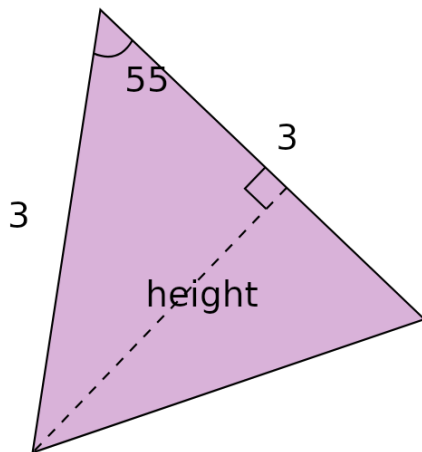
A 7.7	B 9.2	C 9.7
D 10.6	E 8.7	F 11.6

10 Solve for the height indicated



A 5.3	B 6	C 7.1
D 6.4	E 8.1	F 6.7

11 Solve for the area of the triangle



A 2.8	B 3.1	C 3.5
D 3.9	E 3.3	F 3.7