



Trig Twisters

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Name: _____
Date: _____

Directions: You and your partner will work together to solve these trigonometry-related problems. You solve the problems on the left and your partner will solve the problems on the right. When you are done, your answers will match – but the answers are NOT in the same order as the problems. Use your calculator and round answers to the nearest tenth unless stated otherwise.

Find $\sin A$ in $\triangle ABC$.

Given: $\sin A = \frac{12}{20} = \frac{3}{5}$

What is the product of $\sin A$ and $\cos A$ in $\triangle ABC$?

Given: $\sin A = \frac{12}{20} = \frac{3}{5}$
 $\cos A = \frac{16}{20} = \frac{4}{5}$
 Product: $\frac{3}{5} \cdot \frac{4}{5} = \frac{12}{25}$

In right triangle ABC , with right angle at B , the side $AC = 10$. Find A to the nearest degree.

Given: $\sin A = \frac{8}{10} = 0.8$
 $A \approx \sin^{-1}(0.8) \approx 53^\circ$

Find $\sin A$ in $\triangle ABC$.

Given: $\sin A = \frac{4}{5} = 0.8$

What is the product of $\sin A$ and $\cos A$ in $\triangle ABC$?

Given: $\sin A = \frac{4}{5} = 0.8$
 $\cos A = \frac{3}{5} = 0.6$
 Product: $0.8 \cdot 0.6 = 0.48$

Express $\sin A$ as a fraction.

Given: $\sin A = \frac{24}{25}$

Express $\sin B$ as a fraction.

Given: $\sin B = \frac{7}{25}$

In right triangle ABC , with right angle at B , the side $AC = 10$. Find B to the nearest degree.

Given: $\sin B = \frac{6}{10} = 0.6$
 $B \approx \sin^{-1}(0.6) \approx 37^\circ$