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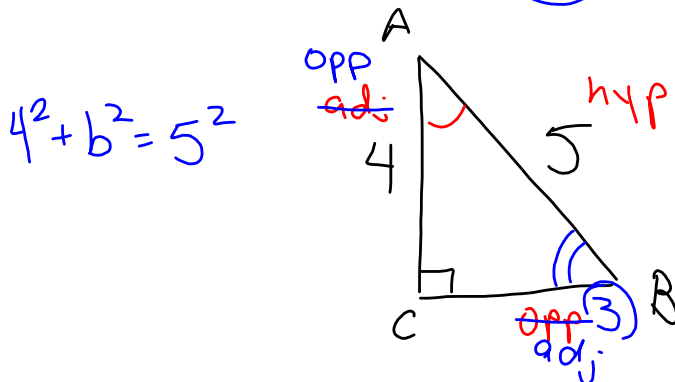
In $\triangle ABC$, $m\angle C = 90^\circ$. If $AB = 5$ and $AC = 4$, which statement is *not* true?

~~1)~~ $\cos A = \frac{4}{5}$

3) $\sin B = \frac{4}{5}$

2) $\tan A = \frac{3}{4}$

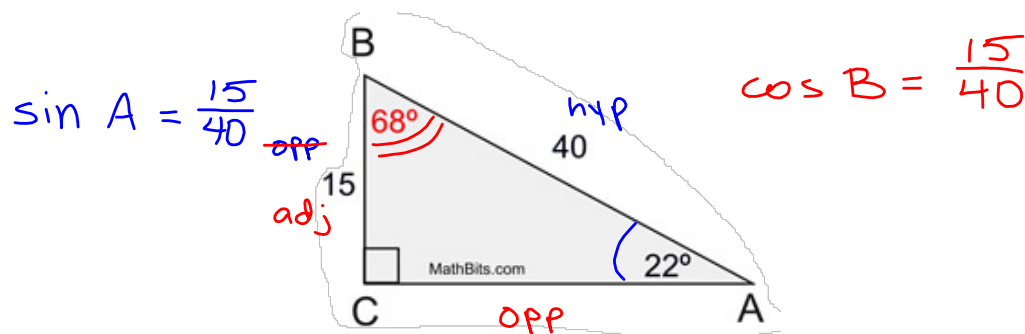
4) $\tan B = \frac{5}{3}$



Jan 25-10:25 AM

Sine and cosine are called "**cofunctions**"

In a right triangle, the sine of one acute angle, A , equals the cosine of the other acute angle, B .

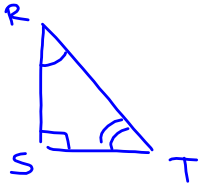


Since the measures of the acute angles of a right triangle add to 90° , $\angle A$ and $\angle B$ are **COMPLEMENTARY**

Jan 25-10:17 AM

If $\angle A$ and $\angle B$ are the acute angles of a right triangle,
 $\sin A = \cos B$

- 1) In $\triangle RST$, angle S is a right angle and $\sin R = 0.26$. Find $\cos T$.



$$\cos T = .26$$

- 2) Given: Right triangle ABC with right angle at C . If $\sin A$ increases, does $\cos B$ increase or decrease? Explain why.

If $\sin A$ increases, $\cos B$ will also increase because $\sin A = \cos B$ in right $\triangle ABC$

Jan 25-10:21 AM

$$\sin \theta = \cos(90 - \theta)$$

$$\cos \theta = \sin(90 - \theta)$$

$$\sin(A) = \cos(B) \quad A + B = 90^\circ$$

- 3) Find the value of R that will make the equation $\sin 73^\circ = \cos R$ true when $0^\circ < R < 90^\circ$. Explain your answer.

$$m\angle R = 17^\circ \rightarrow 73^\circ \text{ angle} + \angle R \text{ are complementary}$$

$$\sin(A) = \cos(B)$$

- 4) If $\sin(3x + 10)^\circ = \cos(x + 24)^\circ$, find x .

$$3x + 10 + x + 24 = 90$$

$$4x + 34 = 90$$

$$4x = 56$$

$$x = 14$$

$$\sin 52^\circ$$

↑

$$\cos 38^\circ$$

↑

Apr 20-9:36 AM

5) In right $\triangle ABC$, $m\angle C = 90^\circ$, $\sin A = x + 0.1$ and $\cos B = 2x - 0.4$. Find x .

$$\begin{array}{r} \sin A = \cos B \\ \downarrow \qquad \downarrow \\ x + .1 = 2x - .4 \\ -x \qquad -x \\ \hline .1 = x - .4 \\ +.4 \qquad +.4 \\ \hline .5 = x \end{array}$$

Apr 20-9:44 AM