SOH $\sin\theta = \frac{opp}{hyp}$ CAH $\cos\theta = \frac{adj}{hyp}$ TOA $\tan\theta = \frac{opp}{adj}$

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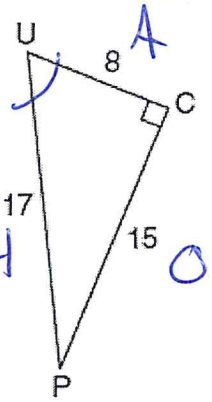
Geometry

Trigonometric Ratios

1. The diagram below shows right triangle *UPC*.



Which ratio represents the sine of $\angle U$?

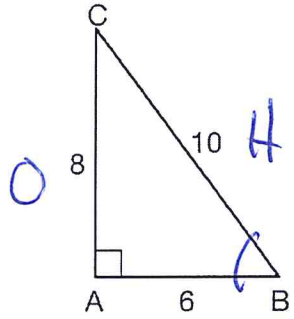
1) $\frac{15}{8}$
2) $\frac{15}{17}$
3) $\frac{8}{15}$
4) $\frac{8}{17}$

$\sin\theta = \frac{O}{H}$ $\sin U = \frac{15}{17}$

2. In ΔABC below, the measure of $\angle A = 90°$, $AB = 6$, $AC = 8$, and $BC = 10$.

Which ratio represents the sine of $\angle B$?

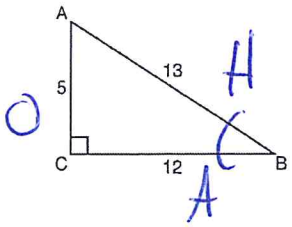
1) $\frac{10}{8}$
2) $\frac{8}{6}$
3) $\frac{6}{10}$
4) $\frac{8}{10}$



$\sin\theta = \frac{O}{H}$ $\sin B = \frac{8}{10}$

3. Which ratio represents the tangent of $\angle ABC$?

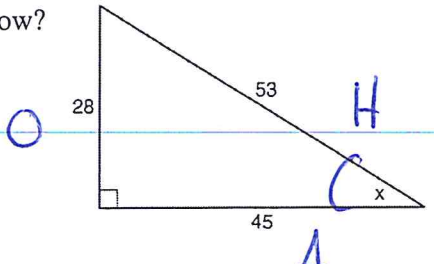
1) $\frac{5}{13}$
2) $\frac{5}{12}$
3) $\frac{12}{13}$
4) $\frac{12}{5}$



$\tan\theta = \frac{O}{A}$ $\tan B = \frac{5}{12}$

4. Which ratio represents $\sin x$ in the right triangle shown below?

1) $\frac{28}{53}$
2) $\frac{28}{45}$
3) $\frac{45}{53}$
4) $\frac{53}{28}$



$\sin\theta = \frac{O}{H}$ $\sin x = \frac{28}{53}$

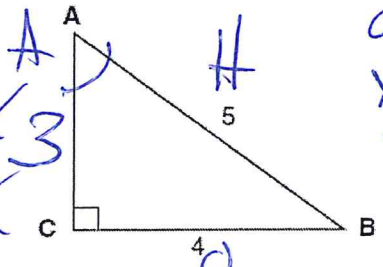
5. Which equation could be used to find the measure of one acute angle in the right triangle shown below?

1) $\sin A = \frac{4}{5}$

2) $\tan A = \frac{5}{4}$

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

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



$a^2+b^2=c^2$

$x^2+4^2=5^2$

$x^2+16=25$

$-16 \quad -16$

$\sqrt{x^2}=\sqrt{9}$

$x=3$

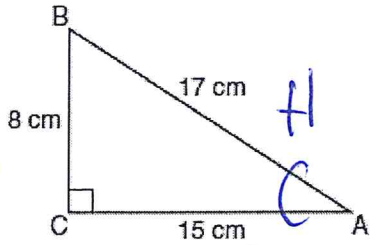
6. Which equation shows a correct trigonometric ratio for angle A in the right triangle below?

1) $\sin A = \frac{15}{17}$

2) $\tan A = \frac{8}{17}$

3) $\cos A = \frac{15}{17}$

4) $\tan A = \frac{5}{8}$



7. In right triangle JKL in the diagram below, $KL = 7$, $JK = 24$, $JL = 25$, and $\angle K = 90°$.

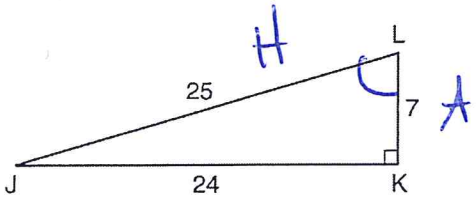
Which statement is *not* true?

1) $\tan L = \frac{24}{7}$

2) $\cos L = \frac{24}{25}$

3) $\tan J = \frac{7}{24}$

4) $\sin J = \frac{7}{25}$



8. In right triangle ABC shown below, $AC = 12$, $BC = 16$, and $AB = 20$.

Which equation is *not* correct?

1) $\cos A = \frac{12}{20}$

2) $\tan A = \frac{16}{12}$

3) $\sin B = \frac{12}{20}$

4) $\tan B = \frac{16}{20}$