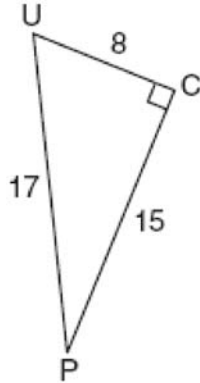


----> **Trigonometric Ratios -- Find the sine, cosine, and tangent ratios of an angle of a right triangle, given the lengths of the sides**

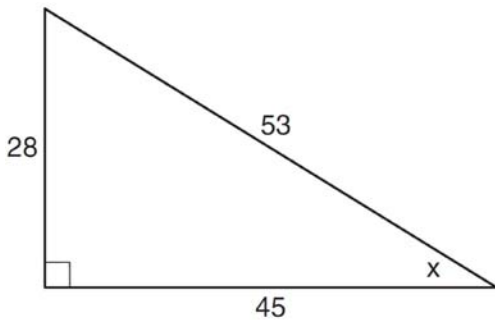
1 The diagram below shows right triangle *UPC*.



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

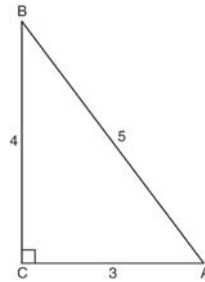
- 1) $\frac{15}{8}$ 2) $\frac{15}{17}$ 3) $\frac{8}{15}$ 4) $\frac{8}{17}$

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



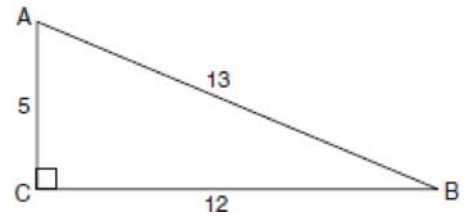
- 1) $\frac{28}{53}$ 2) $\frac{28}{45}$ 3) $\frac{45}{53}$ 4) $\frac{53}{28}$

3 Which ratio represents the cosine of angle *A* in the right triangle below?



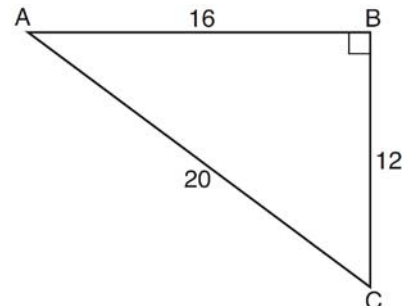
- 1) $\frac{3}{5}$ 2) $\frac{5}{3}$ 3) $\frac{4}{5}$ 4) $\frac{4}{3}$

4 Which ratio represents $\cos A$ in the accompanying diagram of $\triangle ABC$?



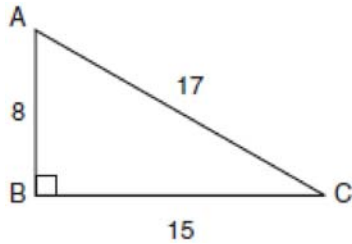
- 1) $\frac{5}{13}$ 2) $\frac{12}{13}$ 3) $\frac{12}{5}$ 4) $\frac{13}{5}$

5 In right triangle *ABC* shown below, what is the value of $\cos A$?



- 1) $\frac{12}{20}$ 2) $\frac{16}{20}$ 3) $\frac{20}{12}$ 4) $\frac{20}{16}$

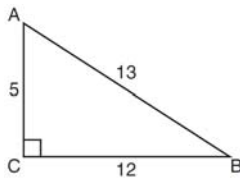
- 6 In the accompanying diagram of right triangle ABC , $AB = 8$, $BC = 15$, $AC = 17$, and $m\angle ABC = 90^\circ$.



What is $\tan \angle C$?

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

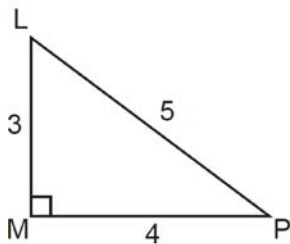
- 7 The diagram below shows right triangle ABC .



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

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

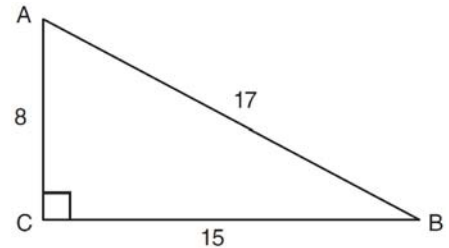
- 8 The diagram below shows right triangle LMP .



Which ratio represents the tangent of $\angle PLM$?

- 1) $\frac{3}{4}$ 2) $\frac{3}{5}$ 3) $\frac{4}{3}$ 4) $\frac{5}{4}$

- 9 Right triangle ABC has legs of 8 and 15 and a hypotenuse of 17, as shown in the diagram below.



The value of the tangent of $\angle B$ is

- 1) 0.4706 2) 0.5333 3) 0.8824 4) 1.8750

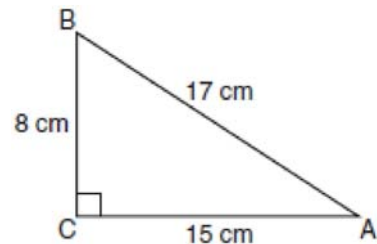
- 10 In triangle MCT , the measure of $\angle T = 90^\circ$, $MC = 85$ cm, $CT = 84$ cm, and $TM = 13$ cm. Which ratio represents the sine of $\angle C$?

- 1) $\frac{13}{85}$ 2) $\frac{84}{85}$ 3) $\frac{13}{84}$ 4) $\frac{84}{13}$

- 11 In $\triangle ABC$, the measure of $\angle B = 90^\circ$, $AC = 50$, $AB = 48$, and $BC = 14$. Which ratio represents the tangent of $\angle A$?

- 1) $\frac{14}{50}$ 2) $\frac{14}{48}$ 3) $\frac{48}{50}$ 4) $\frac{48}{14}$

- 12 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) $\tan A = \frac{5}{8}$

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

- 1) $\cos A = \frac{4}{5}$ 2) $\tan A = \frac{3}{4}$ 3) $\sin B = \frac{4}{5}$
4) $\tan B = \frac{5}{3}$