



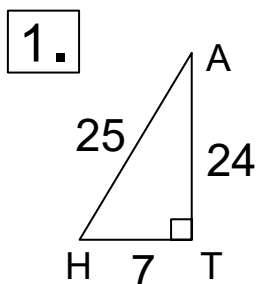
MAth on the Fly!



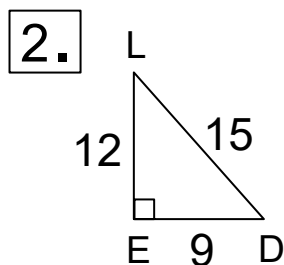
NAME: _____ DATE: _____

Sine, Cosine and Tangent Ratios

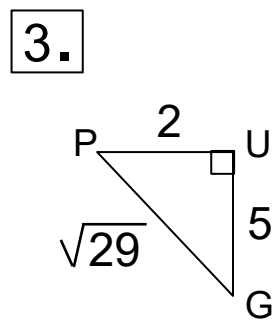
Find the exact answer to each problem below.
(You may need to use the Pythagorean Theorem to find some of the answers.)



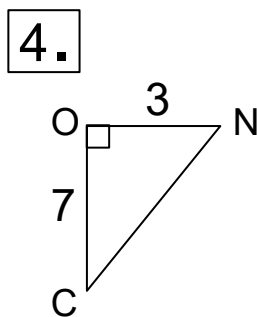
$$\begin{aligned} \sin(H) &= \\ \cos(H) &= \\ \tan(H) &= \\ \sin(A) &= \\ \cos(A) &= \\ \tan(A) &= \end{aligned}$$



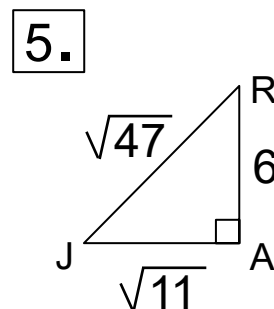
$$\begin{aligned} \sin(L) &= \\ \cos(L) &= \\ \tan(L) &= \\ \sin(D) &= \\ \cos(D) &= \\ \tan(D) &= \end{aligned}$$



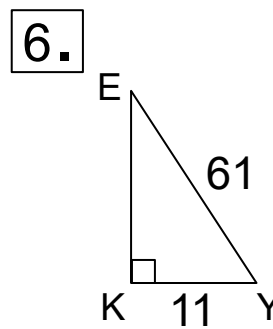
$$\begin{aligned} \sin(P) &= \\ \cos(P) &= \\ \tan(P) &= \\ \sin(G) &= \\ \cos(G) &= \\ \tan(G) &= \end{aligned}$$



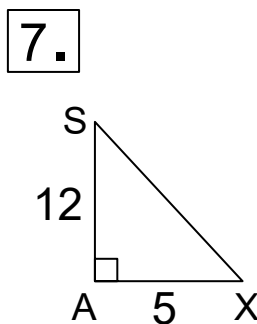
$$\begin{aligned} \sin(C) &= \\ \cos(C) &= \\ \tan(C) &= \\ \sin(N) &= \\ \cos(N) &= \\ \tan(N) &= \end{aligned}$$



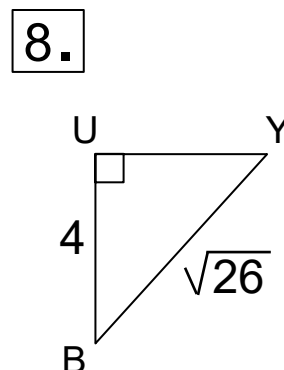
$$\begin{aligned} \sin(R) &= \\ \cos(R) &= \\ \tan(R) &= \\ \sin(J) &= \\ \cos(J) &= \\ \tan(J) &= \end{aligned}$$



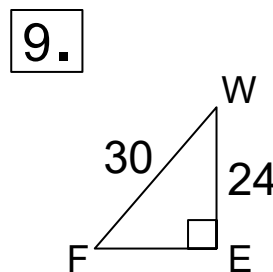
$$\begin{aligned} \sin(Y) &= \\ \cos(Y) &= \\ \tan(Y) &= \\ \sin(E) &= \\ \cos(E) &= \\ \tan(E) &= \end{aligned}$$



$$\begin{aligned} \sin(S) &= \\ \cos(S) &= \\ \tan(S) &= \\ \sin(X) &= \\ \cos(X) &= \\ \tan(X) &= \end{aligned}$$



$$\begin{aligned} \sin(B) &= \\ \cos(B) &= \\ \tan(B) &= \\ \sin(Y) &= \\ \cos(Y) &= \\ \tan(Y) &= \end{aligned}$$



$$\begin{aligned} \sin(W) &= \\ \cos(W) &= \\ \tan(W) &= \\ \sin(F) &= \\ \cos(F) &= \\ \tan(F) &= \end{aligned}$$

SOLUTIONS

$$\boxed{1.} \quad \sin(H) = \frac{24}{25}$$

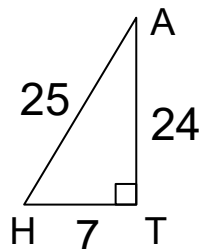
$$\cos(H) = \frac{7}{25}$$

$$\tan(H) = \frac{24}{7}$$

$$\sin(A) = \frac{7}{25}$$

$$\cos(A) = \frac{24}{25}$$

$$\tan(A) = \frac{7}{24}$$



$$\boxed{2.} \quad \sin(L) = \frac{9}{15} = \frac{3}{5}$$

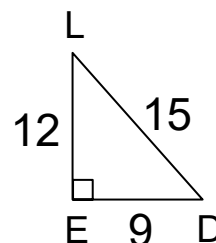
$$\cos(L) = \frac{12}{15} = \frac{4}{5}$$

$$\tan(L) = \frac{9}{12} = \frac{3}{4}$$

$$\sin(D) = \frac{12}{15} = \frac{4}{5}$$

$$\cos(D) = \frac{9}{15} = \frac{3}{5}$$

$$\tan(D) = \frac{12}{9} = \frac{4}{3}$$



$$\boxed{3.} \quad \sin(P) = \frac{5}{\sqrt{29}}$$

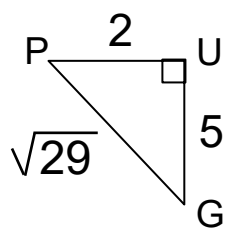
$$\cos(P) = \frac{2}{\sqrt{29}}$$

$$\tan(P) = \frac{5}{2}$$

$$\sin(G) = \frac{2}{\sqrt{29}}$$

$$\cos(G) = \frac{5}{\sqrt{29}}$$

$$\tan(G) = \frac{2}{5}$$



$$\boxed{4.} \quad \sin(C) = \frac{3}{\sqrt{58}}$$

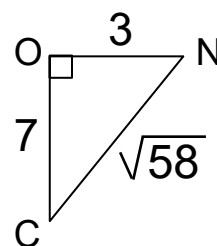
$$\cos(C) = \frac{7}{\sqrt{58}}$$

$$\tan(C) = \frac{3}{7}$$

$$\sin(N) = \frac{7}{\sqrt{58}}$$

$$\cos(N) = \frac{3}{\sqrt{58}}$$

$$\tan(N) = \frac{7}{3}$$



SOLUTIONS

$$\boxed{5.} \quad \sin(R) = \frac{\sqrt{11}}{\sqrt{47}}$$

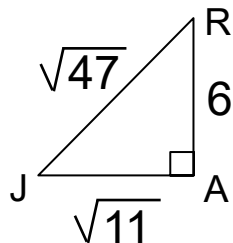
$$\cos(R) = \frac{6}{\sqrt{47}}$$

$$\tan(R) = \frac{\sqrt{11}}{6}$$

$$\sin(J) = \frac{6}{\sqrt{47}}$$

$$\cos(J) = \frac{\sqrt{11}}{\sqrt{47}}$$

$$\tan(J) = \frac{6}{\sqrt{11}}$$



$$\boxed{6.} \quad \sin(Y) = \frac{60}{61}$$

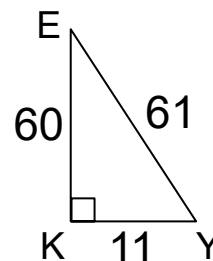
$$\cos(Y) = \frac{11}{61}$$

$$\tan(Y) = \frac{60}{11}$$

$$\sin(E) = \frac{11}{61}$$

$$\cos(E) = \frac{60}{61}$$

$$\tan(E) = \frac{11}{60}$$



$$\boxed{7.} \quad \sin(S) = \frac{5}{13}$$

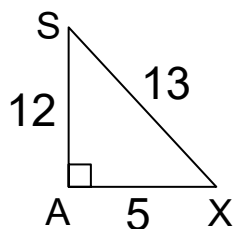
$$\cos(S) = \frac{12}{13}$$

$$\tan(S) = \frac{5}{12}$$

$$\sin(X) = \frac{12}{13}$$

$$\cos(X) = \frac{5}{13}$$

$$\tan(X) = \frac{12}{5}$$



$$\boxed{8.} \quad \sin(B) = \frac{\sqrt{10}}{\sqrt{26}}$$

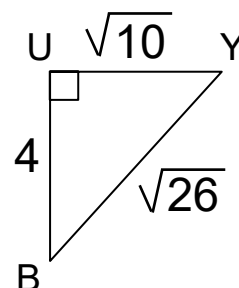
$$\cos(B) = \frac{4}{\sqrt{26}}$$

$$\tan(B) = \frac{\sqrt{10}}{4}$$

$$\sin(Y) = \frac{4}{\sqrt{26}}$$

$$\cos(Y) = \frac{\sqrt{10}}{\sqrt{26}}$$

$$\tan(Y) = \frac{4}{\sqrt{10}}$$



SOLUTIONS

$$\boxed{9.} \quad \sin(W) = \frac{18}{30} = \frac{3}{5}$$

$$\cos(W) = \frac{24}{30} = \frac{4}{5}$$

$$\tan(W) = \frac{18}{24} = \frac{3}{4}$$

$$\sin(F) = \frac{24}{30} = \frac{4}{5}$$

$$\cos(F) = \frac{18}{30} = \frac{3}{5}$$

$$\tan(F) = \frac{24}{18} = \frac{4}{3}$$

