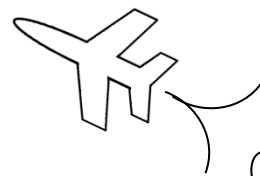


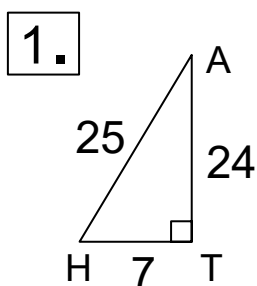
MAth on the Fly!



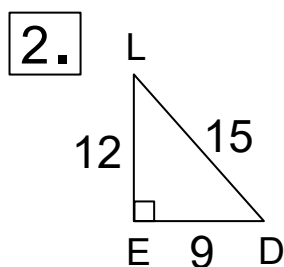
NAME: _____ DATE: _____

Sine, Cosine and Tangent Ratios

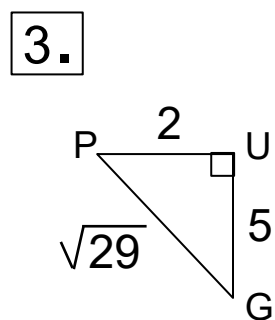
Find the exact answer to each problem below.
(You may need to use the Pythagorean Theorem to find some of the answers.)



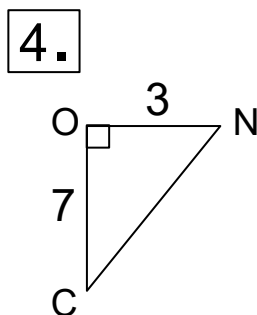
$$\begin{aligned}\sin(H) &= \\ \cos(H) &= \\ \tan(H) &= \\ \sin(A) &= \\ \cos(A) &= \\ \tan(A) &= \end{aligned}$$



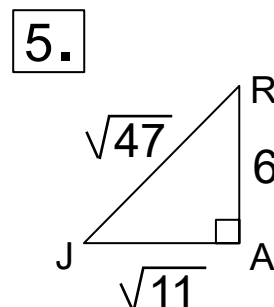
$$\begin{aligned}\sin(L) &= \\ \cos(L) &= \\ \tan(L) &= \\ \sin(D) &= \\ \cos(D) &= \\ \tan(D) &= \end{aligned}$$



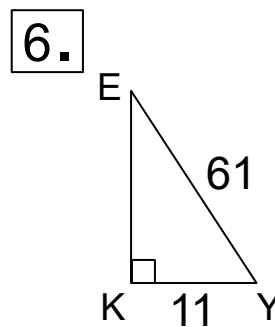
$$\begin{aligned}\sin(P) &= \\ \cos(P) &= \\ \tan(P) &= \\ \sin(G) &= \\ \cos(G) &= \\ \tan(G) &= \end{aligned}$$



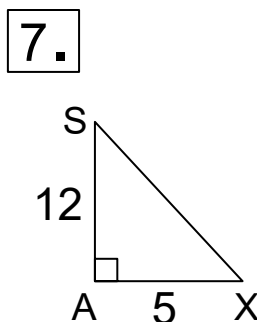
$$\begin{aligned}\sin(C) &= \\ \cos(C) &= \\ \tan(C) &= \\ \sin(N) &= \\ \cos(N) &= \\ \tan(N) &= \end{aligned}$$



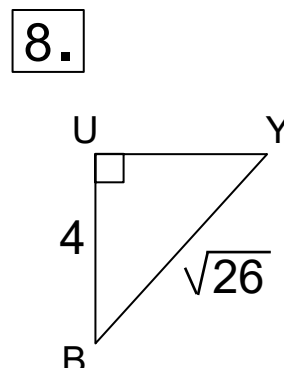
$$\begin{aligned}\sin(R) &= \\ \cos(R) &= \\ \tan(R) &= \\ \sin(J) &= \\ \cos(J) &= \\ \tan(J) &= \end{aligned}$$



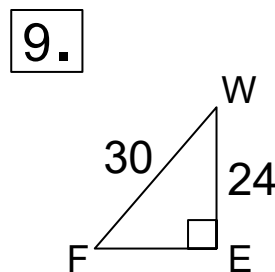
$$\begin{aligned}\sin(Y) &= \\ \cos(Y) &= \\ \tan(Y) &= \\ \sin(E) &= \\ \cos(E) &= \\ \tan(E) &= \end{aligned}$$



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



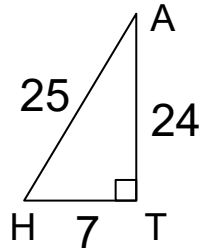
$$\begin{aligned}\sin(B) &= \\ \cos(B) &= \\ \tan(B) &= \\ \sin(Y) &= \\ \cos(Y) &= \\ \tan(Y) &= \end{aligned}$$



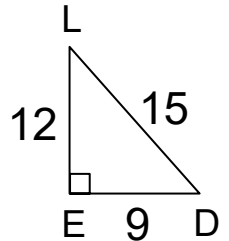
$$\begin{aligned}\sin(W) &= \\ \cos(W) &= \\ \tan(W) &= \\ \sin(F) &= \\ \cos(F) &= \\ \tan(F) &= \end{aligned}$$

SOLUTIONS

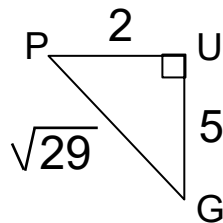
1. $\sin(H) = \frac{24}{25}$
 $\cos(H) = \frac{7}{25}$
 $\tan(H) = \frac{24}{7}$
 $\sin(A) = \frac{7}{25}$
 $\cos(A) = \frac{24}{25}$
 $\tan(A) = \frac{7}{24}$



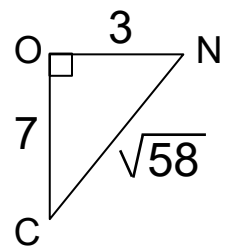
2. $\sin(L) = \frac{9}{15} = \frac{3}{5}$
 $\cos(L) = \frac{12}{15} = \frac{4}{5}$
 $\tan(L) = \frac{9}{12} = \frac{3}{4}$
 $\sin(D) = \frac{12}{15} = \frac{4}{5}$
 $\cos(D) = \frac{9}{15} = \frac{3}{5}$
 $\tan(D) = \frac{12}{9} = \frac{4}{3}$



3. $\sin(P) = \frac{5}{\sqrt{29}}$
 $\cos(P) = \frac{2}{\sqrt{29}}$
 $\tan(P) = \frac{5}{2}$
 $\sin(G) = \frac{2}{\sqrt{29}}$
 $\cos(G) = \frac{5}{\sqrt{29}}$
 $\tan(G) = \frac{2}{5}$

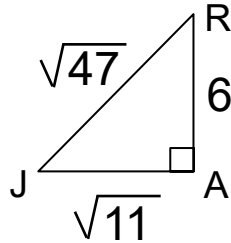


4. $\sin(C) = \frac{3}{\sqrt{58}}$
 $\cos(C) = \frac{7}{\sqrt{58}}$
 $\tan(C) = \frac{3}{7}$
 $\sin(N) = \frac{7}{\sqrt{58}}$
 $\cos(N) = \frac{3}{\sqrt{58}}$
 $\tan(N) = \frac{7}{3}$

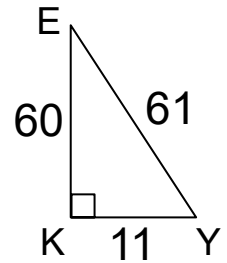


SOLUTIONS

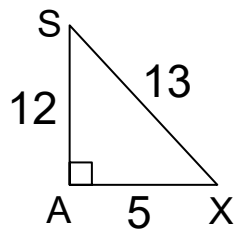
5. $\sin(R) = \frac{\sqrt{11}}{\sqrt{47}}$
 $\cos(R) = \frac{6}{\sqrt{47}}$
 $\tan(R) = \frac{\sqrt{11}}{6}$
 $\sin(J) = \frac{6}{\sqrt{47}}$
 $\cos(J) = \frac{\sqrt{11}}{\sqrt{47}}$
 $\tan(J) = \frac{6}{\sqrt{11}}$



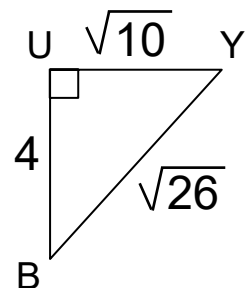
6. $\sin(Y) = \frac{60}{61}$
 $\cos(Y) = \frac{11}{61}$
 $\tan(Y) = \frac{60}{11}$
 $\sin(E) = \frac{11}{61}$
 $\cos(E) = \frac{60}{61}$
 $\tan(E) = \frac{11}{60}$



7. $\sin(S) = \frac{5}{13}$
 $\cos(S) = \frac{12}{13}$
 $\tan(S) = \frac{5}{12}$
 $\sin(X) = \frac{12}{13}$
 $\cos(X) = \frac{5}{13}$
 $\tan(X) = \frac{12}{5}$



8. $\sin(B) = \frac{\sqrt{10}}{\sqrt{26}}$
 $\cos(B) = \frac{4}{\sqrt{26}}$
 $\tan(B) = \frac{\sqrt{10}}{4}$
 $\sin(Y) = \frac{4}{\sqrt{26}}$
 $\cos(Y) = \frac{\sqrt{10}}{\sqrt{26}}$
 $\tan(Y) = \frac{4}{\sqrt{10}}$



SOLUTIONS

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

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

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

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

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

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

