SETH M.R. JAIPURIA SCHOOLS BANARAS PARAO CAMPUS

SUBJECT – MATHEMATICS

CLASS –X (TRIGONOMETRY)- **ANSWER** **06.09.2024**

$\tan\theta = \frac{\sin\theta}{\cos\theta}$ and $\cot\theta = \frac{\cos\theta}{\sin\theta}$

$\text{cosec}\theta = \frac{\text{Hypotenuse}}{\text{Opposite side}}$

$\cos\theta = \frac{1}{\sec\theta}$ & $\sec\theta = \frac{1}{\cos\theta}$

$\sec\theta = \frac{\text{Hypotenuse}}{\text{Adjacent Side}}$

$cosec^2\theta = 1 + cot^2\theta$

$\sin\theta = \frac{1}{\text{cosec}\theta}$ & $\text{cosec}\theta = \frac{1}{\sin\theta}$

$\cos\theta = \frac{\text{Adjacent Side}}{\text{Hypotenuse}}$

$\sin\theta = \frac{\text{Opposite side}}{\text{Hypotenuse}}$

$sin^2\theta + cos^2\theta = 1$

$sec^2\theta = 1 + tan^2\theta$

$\cot\theta = \frac{\text{Adjacent Side}}{\text{Opposite side}}$

$\tan\theta = \frac{\text{Opposite side}}{\text{Adjacent Side}}$

$\text{Sin } 30^0 = \frac{1}{2}$

$\cos 30^0 = \frac{\sqrt{3}}{2}$

$\tan 60^0 = \sqrt{3}$

$\sec 60^0 = 2$

$\cot 30^0 = \sqrt{3}$

$\text{coses } 30^0 = 2$

$\text{cosec } 60^0 = \frac{2}{\sqrt{3}}$

$\text{cosec } 30^0 = 2$

$\text{Sin } 90^0 = 1$

$\cos 90^0 = 0$

$\sin 45^0 = \frac{1}{\sqrt{2}}$

$\sec 45^0 = \sqrt{2}$

$\cot 0^0 = \infty$

$\tan 0^0 = 0$

$\tan 90^0 = \infty$

$\sin 0^0 = 0$

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INTRO TO TRIGONOMETRY *practice*

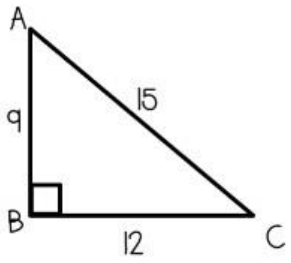
Directions: Find the trig. ratios for the right triangles. Make sure to reduce all fractions! *Pictures may not be drawn to scale.*

1.

sin(A)=

cos(A)=

tan(A)=

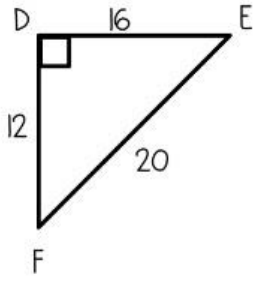


2.

sin(F)=

cos(F)=

tan(F)=

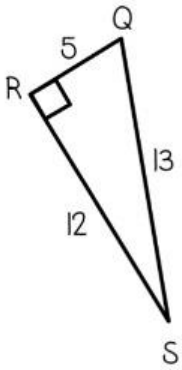


3.

sin(Q)=

cos(Q)=

tan(Q)=

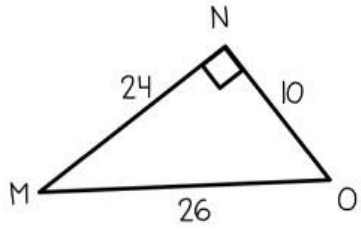


4.

sin(M)=

cos(M)=

tan(M)=

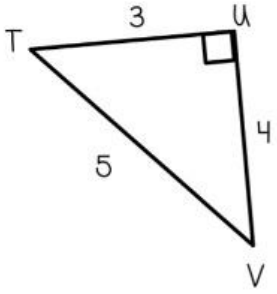


5.

sin(V)= sin(T)=

cos(V)= cos(T)=

tan(V)= tan(T)=

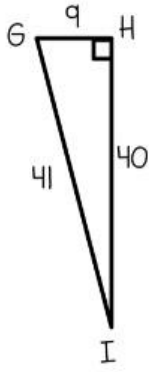


6.

sin(G)= sin(I)=

cos(G)= cos(I)=

tan(G)= tan(I)=

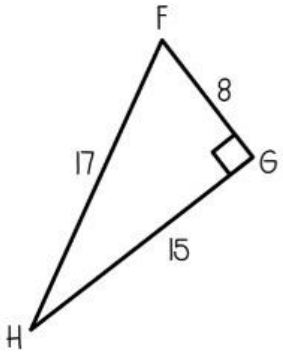


7.

sin(F)= sin(H)=

cos(F)= cos(H)=

tan(F)= tan(H)=



8.

sin(R)= sin(T)=

cos(R)= cos(T)=

tan(R)= tan(T)=