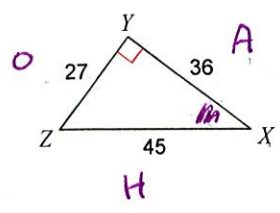


Ch 8 Trig Quiz Review

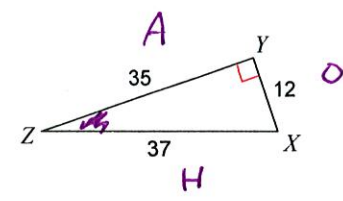
Find the value of each trigonometric ratio.

1) $\tan X$



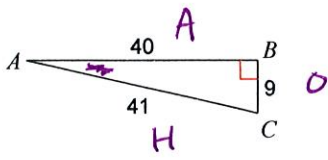
$$\tan X = \frac{O}{A} = \frac{27}{36} = \frac{3}{4} = 0.75$$

2) $\cos Z$



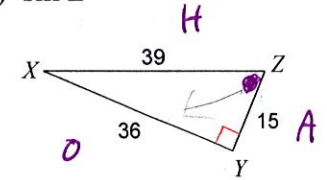
$$\cos Z = \frac{A}{H} = \frac{35}{37} \approx 0.95$$

3) $\cos A$



$$\cos A = \frac{A}{H} = \frac{40}{41} \approx 0.98$$

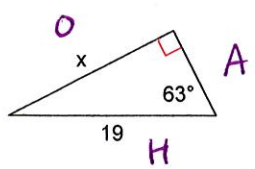
4) $\sin Z$



$$\sin Z = \frac{O}{H} = \frac{15}{39} = \frac{5}{13} \approx 0.38$$

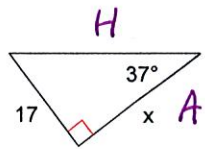
Find the missing side. Round to the nearest tenth.

5)



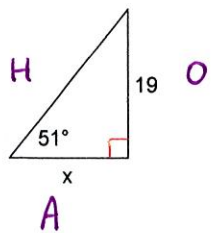
$$\sin X = \frac{O}{H} \Rightarrow \sin 63 = \frac{x}{19} \Rightarrow 19 \sin 63 = x \Rightarrow \boxed{16.9} = x$$

6)



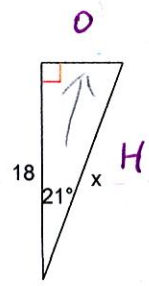
$$\tan X = \frac{O}{A} \Rightarrow \tan 37 = \frac{17}{x} \Rightarrow x = \frac{17}{\tan 37} \Rightarrow \boxed{22.6} = x$$

7)



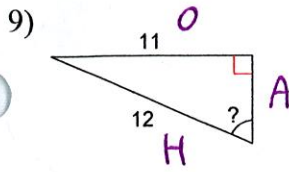
$$\tan X = \frac{O}{A} \Rightarrow \tan 51 = \frac{19}{x} \Rightarrow x = \frac{19}{\tan 51} \Rightarrow \boxed{15.4} = x$$

8)



$$\cos X = \frac{A}{H} \Rightarrow \cos 21 = \frac{18}{x} \Rightarrow x = \frac{18}{\cos 21} \Rightarrow \boxed{19.3} = x$$

Find the measure of the indicated angle to the nearest degree.

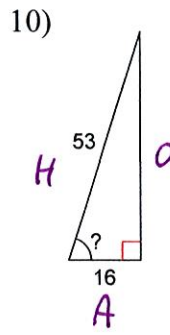


$$\sin X = \frac{O}{H}$$

$$\sin^{-1}\left(\frac{O}{H}\right) = X$$

$$\sin^{-1}\left(\frac{11}{12}\right) = X$$

$$\boxed{66.4^\circ} = X$$

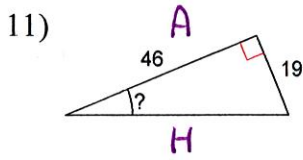


$$\cos X = \frac{A}{H}$$

$$\cos^{-1}\left(\frac{A}{H}\right) = X$$

$$\cos^{-1}\left(\frac{16}{53}\right) = X$$

$$\boxed{72.4^\circ} = X$$

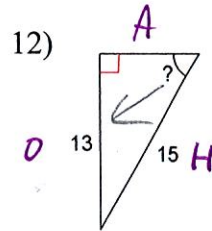


$$\tan X = \frac{O}{A}$$

$$\tan^{-1}\left(\frac{O}{A}\right) = X$$

$$\tan^{-1}\left(\frac{19}{46}\right) = X$$

$$\boxed{22.4^\circ} = X$$



$$\sin X = \frac{O}{H}$$

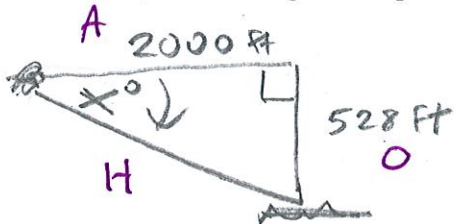
$$\sin^{-1}\left(\frac{O}{H}\right) = X$$

$$\sin^{-1}\left(\frac{13}{15}\right) = X$$

$$\boxed{60.1^\circ} = X$$

Make a sketch and solve.

- 13) Due to a storm, a pilot flying at an altitude of 528 feet has to land. If he has a horizontal distance of 2000 feet to land, at what angle of depression should he land?



$$\tan X = \frac{O}{A}$$

$$\tan^{-1} \frac{O}{A} = X$$

$$\tan^{-1} \frac{528}{2000} = X$$

$$\boxed{14.8^\circ} = X$$