

SOH-CAH-TOA

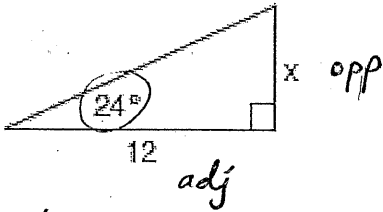
$$\sin \angle A = \frac{\text{Opp}}{\text{Hyp}}$$

$$\cos \angle A = \frac{\text{Adj}}{\text{Hyp}}$$

$$\tan \angle A = \frac{\text{Opp}}{\text{Adj}}$$

Find the value of each variable using trigonometric ratios.

1.

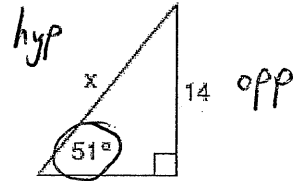


$$\frac{\tan 24}{1} \times \frac{x}{12}$$

$$x = 12 \tan 24$$

$$x = 5.34$$

2.



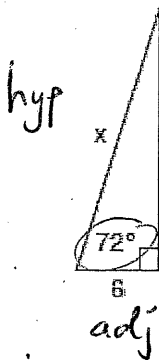
$$\frac{\sin 51}{1} = \frac{14}{x}$$

$$x \sin 51 = 14$$

$$x = \frac{14}{\sin 51}$$

$$x = 18.01$$

3.



$$\frac{\cos 72}{1} = \frac{6}{x}$$

$$x \cos 72 = 6$$

$$x \cos 72 = 6$$

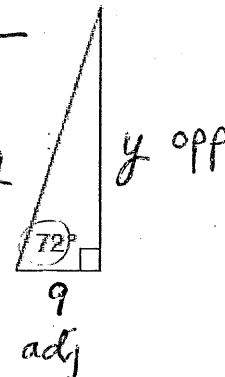
$$x = 19.42$$

4.

$$\frac{\tan 72}{1} = \frac{y}{9}$$

$$y = 9 \tan 72$$

$$y = 27.70$$



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$$\sin \angle A = \frac{\text{Opp}}{\text{Hyp}}$$

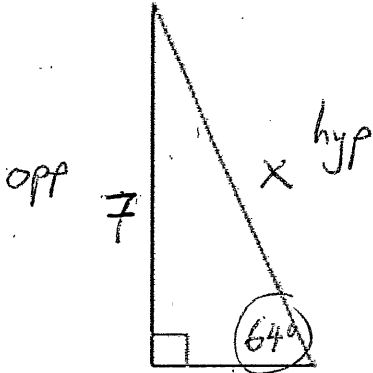
$$\cos \angle A = \frac{\text{Adj}}{\text{Hyp}}$$

$$\tan \angle A = \frac{\text{Opp}}{\text{Adj}}$$

Find the value of each variable using trigonometric ratios.

5.

$$\frac{\sin 64}{1} = \frac{7}{x}$$

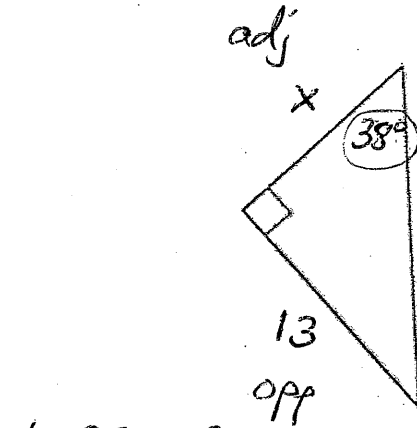


$$x \sin 64 = 7$$

$$x = \frac{7}{\sin 64}$$

$$x = 7.79$$

6.



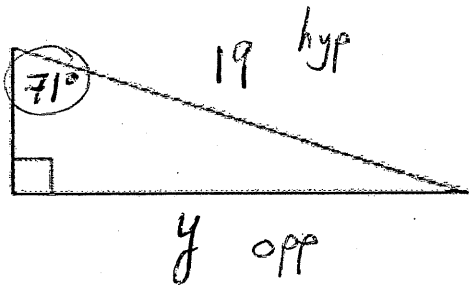
$$\frac{\tan 38}{1} = \frac{13}{x}$$

$$x \tan 38 = 13$$

$$x = \frac{13}{\tan 38}$$

$$x = 16.64$$

7.

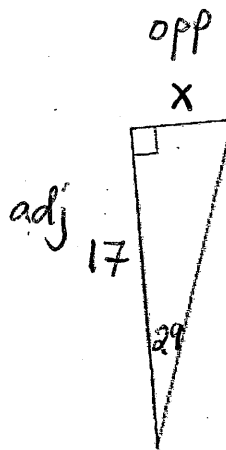


$$\frac{\sin 71}{1} = \frac{y}{19}$$

$$y = 19 \sin 71$$

$$y = 17.96$$

8.



$$\frac{\tan 29}{1} = \frac{x}{17}$$

$$x = 17 \tan 29$$

$$x = 9.42$$