

Trigonometric Ratios

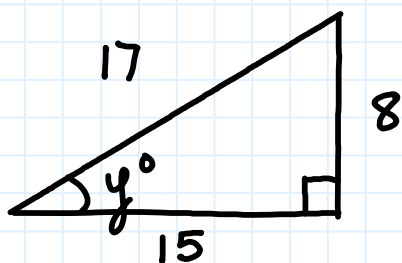


Overview of problems

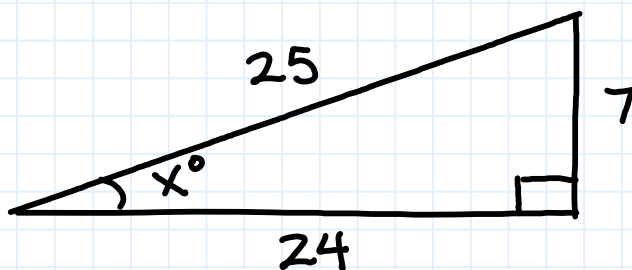


Example Set: A

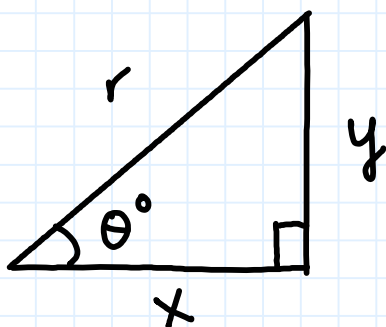
Write the ratio for the indicated trigonometric function.



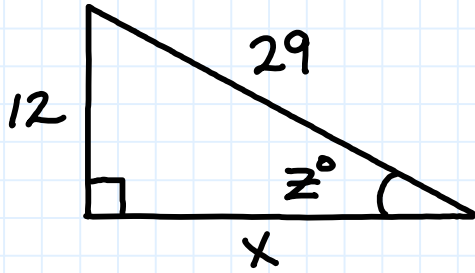
$$\tan(y^\circ) =$$



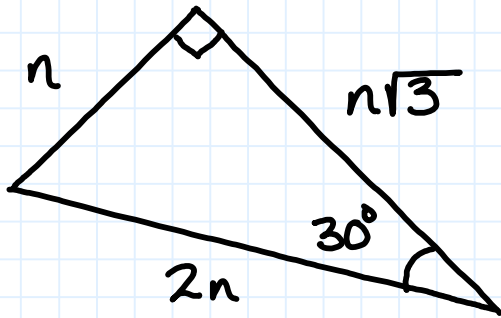
$$\cos(x^\circ) =$$



$$\sin(\theta^\circ) =$$



$$\tan(z^\circ) =$$



$$\cos(30^\circ) =$$

Use a calculator to find the values of the following

$$\tan(70^\circ) =$$

$$4 \tan(22.9^\circ) =$$

$$\sin(36^\circ) =$$

$$\frac{\sin^{-1}(.866025)}{3} =$$

$$\cos(17^\circ) =$$

$$\tan^{-1}(1.9626) =$$

$$12 \cos^{-1}(.58778) =$$

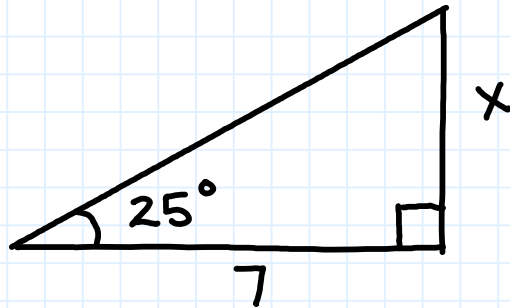
$$\sin^{-1}(.55919) =$$

$$\cos^{-1}(.99026) =$$

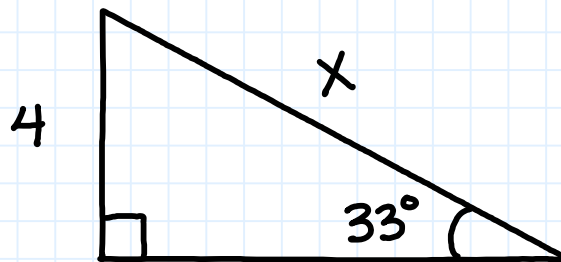


Example Set: B

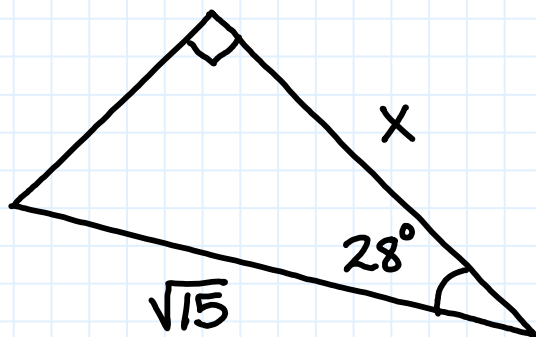
Use your knowledge of the **tangent** function and a calculator to find the value of x .



Use your knowledge of the **sine** function and a calculator to find the value of x .



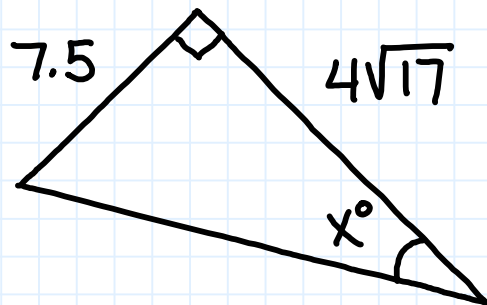
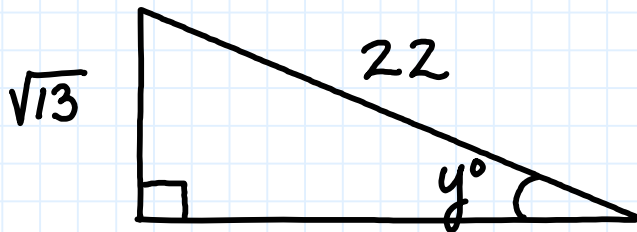
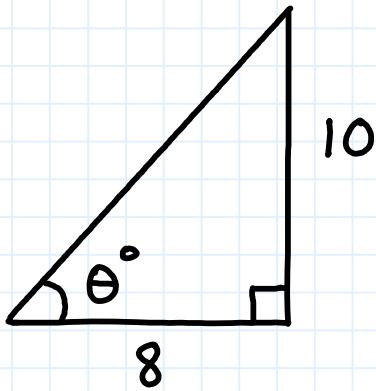
Use your knowledge of the **cosine** function and a calculator to find the value of x .





Example Set: C

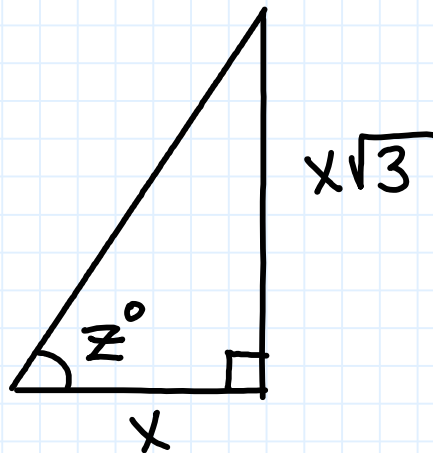
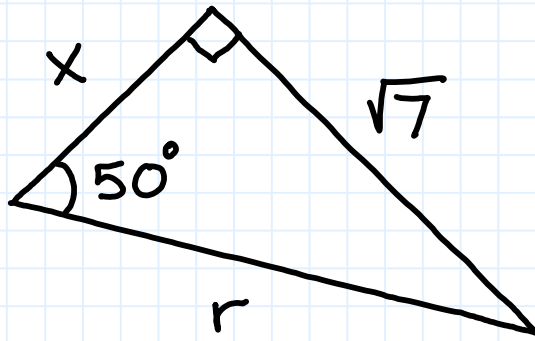
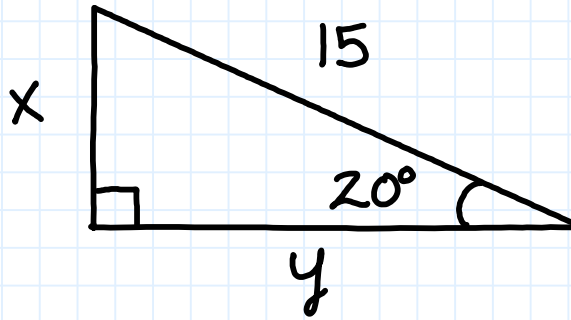
Use the inverse trigonometric function to find the angle





Example Set: D

Find the value of the variables



Trigonometric Ratios

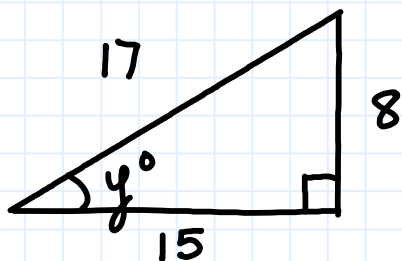


Overview of problems- KEY

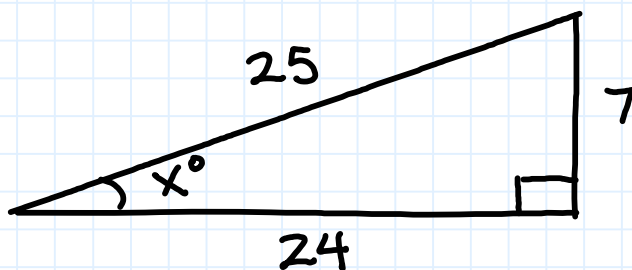


Example Set: A

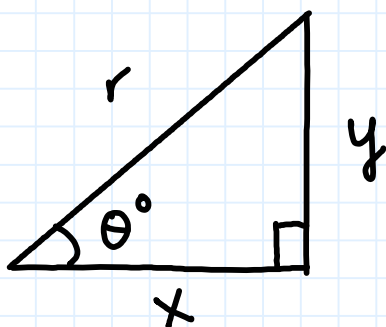
Write the ratio for the indicated trigonometric function.



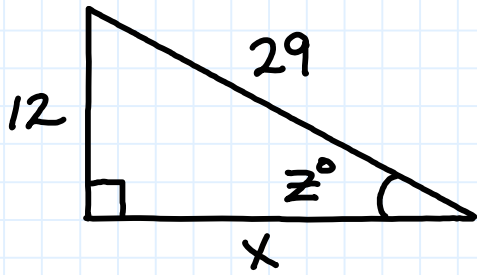
$$\tan(y^\circ) = \frac{8}{15}$$



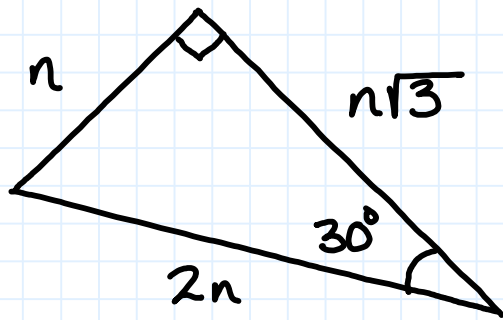
$$\cos(x^\circ) = \frac{24}{25}$$



$$\sin(\theta^\circ) = \frac{y}{r}$$



$$\tan(z^\circ) = \frac{12}{x}$$



$$\cos(30^\circ) = \frac{\sqrt{3}}{2}$$

Use a calculator to find the values of the following

$$\tan(70^\circ) = 2.7474$$

$$4 \tan(22.9^\circ) = 1.6896$$

$$\sin(36^\circ) = .58788$$

$$\frac{\sin^{-1}(.866025)}{3} = 19.99$$

$$\cos(17^\circ) = .95630$$

$$\tan^{-1}(1.9626) = 62.99^\circ$$

$$12 \cos^{-1}(.58778) = 648.00$$

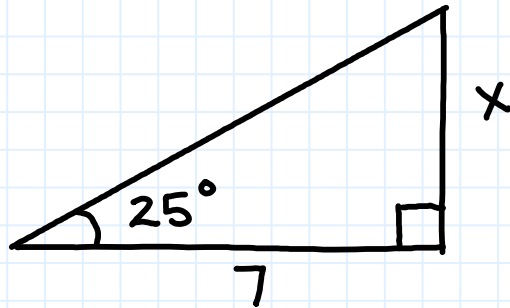
$$\sin^{-1}(.55919) = 33.99^\circ$$

$$\cos^{-1}(.99026) = 8.00^\circ$$



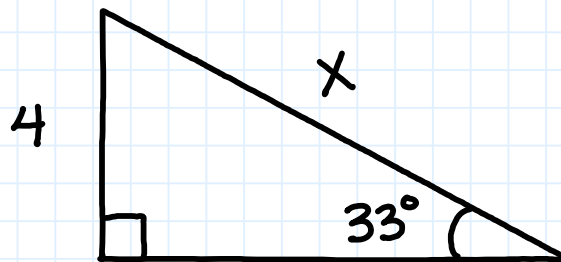
Example Set: B

Use your knowledge of the **tangent** function and a calculator to find the value of x .



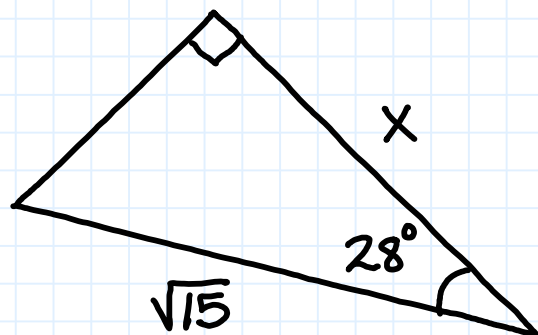
$$x = 3.264$$

Use your knowledge of the **sine** function and a calculator to find the value of x .



$$x = 7.344$$

Use your knowledge of the **cosine** function and a calculator to find the value of x .

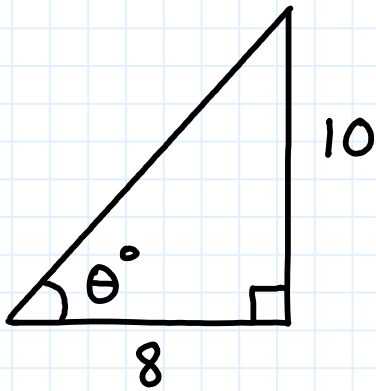


$$x = 3.4196$$

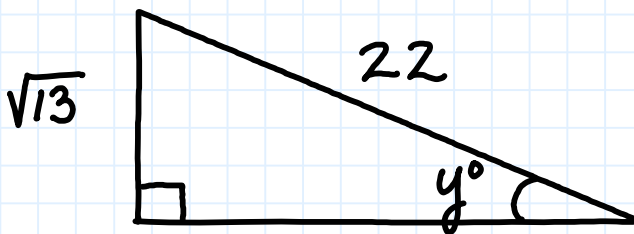


Example Set: C

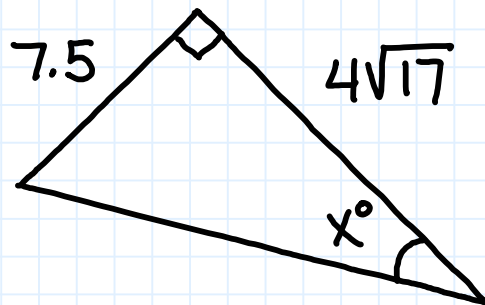
Use the inverse trigonometric function to find the angle



$$\theta = 51.34^\circ$$



$$\gamma^\circ = 9.432^\circ$$

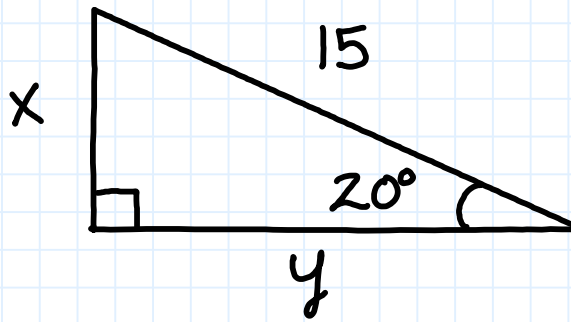


$$x^\circ = 24.45^\circ$$



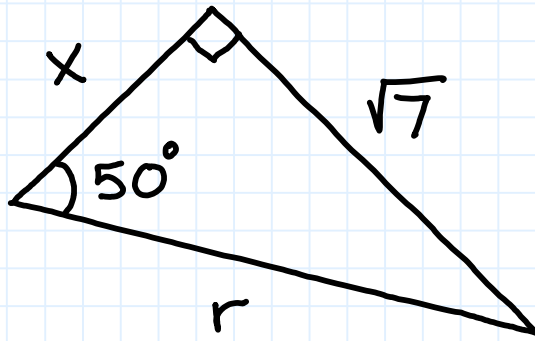
Example Set: D

Find the value of the variables



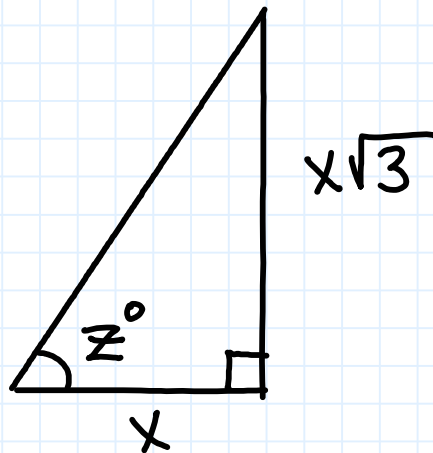
$$x = 5.13$$

$$y = 14.09$$



$$x = 2.22$$

$$r = 3.45$$



$$x = x$$

$$z^\circ = 60^\circ$$