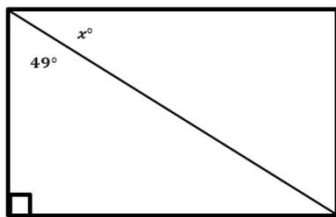


## Angle Word Problems Worksheets

Write and solve an equation in each of the problems.

1.  $\angle ABC$  measures  $90^\circ$ . It has been split into two angles,  $\angle ABD$  and  $\angle DBC$ . The measure of the two angles is in a ratio of 2: 1. What are the measures of each angle?

2. Candice is building a rectangular piece of a fence according to the plans her boss gave her. One of the angles is not labeled. Write an equation, and use it to determine the measure of the unknown angle.



3. Rashid hit a hockey puck against the wall at a  $38^\circ$  angle. The puck hit the wall and traveled in a new direction. Determine the missing angle in the diagram.



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$$x^\circ + 2x^\circ = 90^\circ$$

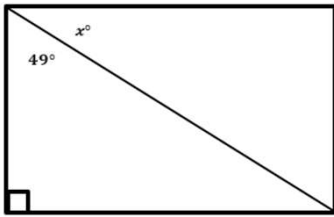
$$3x^\circ = 90^\circ$$

$$\frac{3x^\circ}{3} = \frac{90^\circ}{3}$$

$$x^\circ = 30^\circ$$

*One of the angles measures  $30^\circ$ , and the other measures  $60^\circ$ .*

2. Candice is building a rectangular piece of a fence according to the plans her boss gave her. One of the angles is not labeled. Write an equation, and use it to determine the measure of the unknown angle.



$$\begin{aligned}x^\circ + 49^\circ &= 90^\circ \\x^\circ + 49^\circ - 49^\circ &= 90^\circ - 49^\circ \\x^\circ &= 41^\circ\end{aligned}$$

3. Rashid hit a hockey puck against the wall at a  $38^\circ$  angle. The puck hit the wall and traveled in a new direction. Determine the missing angle in the diagram.



$$\begin{aligned}38^\circ + x^\circ + 38^\circ &= 180^\circ \\76^\circ + x^\circ &= 180^\circ \\76^\circ - 76^\circ + x^\circ &= 180^\circ - 76^\circ \\x^\circ &= 104^\circ\end{aligned}$$

*The measure of the missing angle is  $104^\circ$ .*

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