Angle Word Problems Worksheets

Write and solve an equation in each of the problems.

1. Jaxon is creating a mosaic design on a rectangular table. He has added two pieces to one of the corners. The first piece has an angle measuring 38° and is placed in the corner. A second piece has an angle measuring 27° and is also placed in the corner. Draw a diagram to model the situation. Then, write an equation, and use it to determine the measure of the unknown angle in a third piece that could be added to the corner of the table.

2. Alejandro is repairing a stained glass window. He needs to take it apart to repair it. Before taking it apart, he makes a sketch with angle measures to put it back together. Write an equation, and use it to determine the measure of the unknown angle.



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$$x^{\circ} + 38^{\circ} + 27^{\circ} = 90^{\circ}$$

 $x^{\circ} + 65^{\circ} = 90^{\circ}$
 $x^{\circ} + 65^{\circ} - 65^{\circ} = 90^{\circ} - 65^{\circ}$
 $x^{\circ} = 25^{\circ}$

The measure of the unknown angle is 25°.

2. Alejandro is repairing a stained glass window. He needs to take it apart to repair it. Before taking it apart, he makes a sketch with angle measures to put it back together. Write an equation, and use it to determine the measure of the unknown angle.



$$40^{\circ} + x^{\circ} + 30^{\circ} = 180^{\circ}$$
$$x^{\circ} + 40^{\circ} + 30^{\circ} = 180^{\circ}$$
$$x^{\circ} + 70^{\circ} = 180^{\circ}$$
$$x^{\circ} + 70^{\circ} - 70^{\circ} = 180^{\circ} - 70^{\circ}$$
$$x^{\circ} = 110^{\circ}$$

The missing angle measures 110° .

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