



2-6 Solve It!




Use what you've learned about congruent angle pairs.

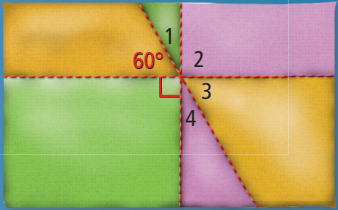


SOLVE IT!

Getting Ready!

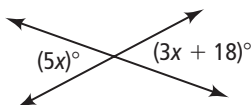


A quilter wants to duplicate this quilt but knows the measure of only two angles. What are the measures of angles 1, 2, 3, and 4? How do you know?

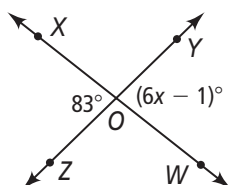


2-6 Lesson Quiz

1. What is the value of x ?



2. Do you UNDERSTAND? Write a paragraph proof that validates $x = 14$ as the solution in the figure below.



Answers

Solve It!

$m\angle 1 = 30$; $m\angle 2 = 90$;
 $m\angle 3 = 60$; $m\angle 4 = 30$; $m\angle 1$
 can be found by subtracting the
 sum of 60 and 90 from 180.
 The other measures can also be
 found by finding three angles
 with a sum of 180.

Lesson Quiz

- $x = 9$
- Angles XOZ and YOW are congruent because they are vertical angles. So, their measures are equal by the definition of congruence and $83 = 6x - 1$. You can add 1

to each side of the equation
 by the Addition Property of
 Equality, which results in
 $84 = 6x$. Then by the
 Division Property of Equality
 $x = \frac{84}{6}$, or $x = 14$.