

Name _____ Class _____ Date _____

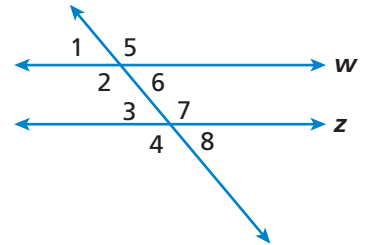
Practice It!



MA.8.G.2.2 Classify and determine the measure of angles, including angles created when parallel lines are cut by transversals.

Parallel and Perpendicular Lines

In the diagram, lines w and z are parallel. Use the diagram to answer each question. Explain your reasoning.



1. Measure the angles in the figure. Which angles appear to be congruent?

2. If $m\angle 1 = 45^\circ$, what is $m\angle 3$?

3. If $m\angle 2 = 132^\circ$, what is $m\angle 7$?

4. If $m\angle 4 = 118^\circ$, what is $m\angle 5$?

5. If $m\angle 6 = 53^\circ$, what is $m\angle 7$?

6. If $m\angle 8 = 28^\circ$, complete two different ways of finding $m\angle 2$.

Method 1: $\angle 8$ and $\angle 6$ _____ angles, so they are _____

and $m\angle 6 =$ _____.

$\angle 6$ and $\angle 2$ are _____.

_____ + _____ = 180° , so $m\angle 2 = 180^\circ -$ _____ = _____.

Method 2: $\angle 8$ and $\angle 4$ _____ angles, so $m\angle 8 + m\angle 4 =$ _____

and $m\angle 4 = 180^\circ -$ _____ = 152° .

_____ and $\angle 2$ are corresponding angles, so $m\angle 2 =$ _____ = _____.