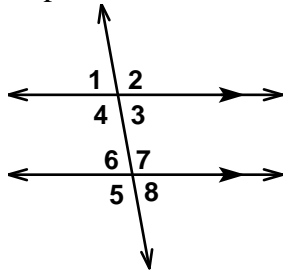


NAME: _____

1. Find a real world example of parallel lines cut by transversals and identify some congruent angles in your example.

2. Explain how to find $m\angle 8$ in two different ways if you know that $m\angle 1 = 56$.



3. Explain how a builder would use the theorems about proving lines parallel to build a parking garage or other building.
4. Find two lines edges of your desk that you think are parallel and measure the angles formed by a transversal with those lines. Are the lines parallel? Which theorem did you use to justify your answer?

[1] Check students' work.

$\angle 1$ and $\angle 3$ are congruent because they are vertical angles and $\angle 3$ and $\angle 8$ are congruent because of the corresponding angles postulate. So, the angles $\angle 1$ and $\angle 8$ are congruent and $m\angle 8 = 56$. Or, angles

[2] $\angle 4$ and $\angle 5$ are congruent. $m\angle 4 = 180 - 56 = 124 = m\angle 5$. So, $m\angle 8 = 180 - 124 = 56$.

By building the floors so that they make the same angle with a given wall, the floors will each be

[3] parallel to each other.

[4] Check students' work.