

Complete the two-column proof to show that
If $\angle 1$ and $\angle 2$ are supplementary and $m \angle 1 = m \angle 2$,
Then $\angle 1$ and $\angle 2$ are right angles.

Given: $\angle 1$ and $\angle 2$ are supplementary; $m \angle 1 = m \angle 2$

Prove: $\angle 1$ and $\angle 2$ are right angles

Substitution Definition of Supplementary Angles

Definition of Right Angles Simplify

Division Property of Equality Given

Statements	Reasons
a. $\angle 1$ and $\angle 2$ are supplementary; $m \angle 1 = m \angle 2$	
b. $m \angle 1 + m \angle 2 = 180$	
c. $m \angle 1 + m \angle 1 = 180$	
d. $2(m \angle 1) = 180$	
e. $m \angle 1 = 90$	
f. $m \angle 2 = 90$	$m \angle 1 = m \angle 2$ (Given)
g. $\angle 1$ and $\angle 2$ are right angles	

