

Practice C

For use with pages 96–101

In Exercises 1–6, use the property to complete the statement.

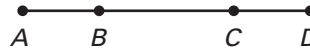
- Multiplication property of equality: If $BD = 6$, then $\underline{\quad? \quad} (BD) = 2$.
- Transitive property of equality: If $m\angle ABC = m\angle DEF$ and $\underline{\quad? \quad} = m\angle STO$, then $\underline{\quad? \quad}$.
- Addition property of equality: If $m\angle STJ = 42^\circ$, then $17^\circ + m\angle STJ = \underline{\quad? \quad}$.
- Reflexive property of equality: $HS = \underline{\quad? \quad}$.
- Substitution property of equality: If $RL = 7.5$, then $5(RL) = \underline{\quad? \quad}$.
- Symmetric property of equality: If $m\angle MCS = m\angle DBA$, then $\underline{\quad? \quad}$.

Complete the argument, giving a reason for each step.

7. $-2(3x - 4) = 3x + 12$ Given
 $-6x + 8 = 3x + 12$ a. $\underline{\quad? \quad}$
 $-9x + 8 = 12$ b. $\underline{\quad? \quad}$
 $-9x = 4$ c. $\underline{\quad? \quad}$
 $x = -\frac{4}{9}$ d. $\underline{\quad? \quad}$

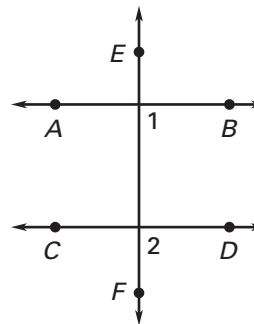
8. $9 = 4x - 3(x - 2)$ Given
 $9 = 4x - 3x + 6$ a. $\underline{\quad? \quad}$
 $9 = x + 6$ b. $\underline{\quad? \quad}$
 $3 = x$ c. $\underline{\quad? \quad}$
 $x = 3$ d. $\underline{\quad? \quad}$

9. $AB = CD$ Given
 $BC = BC$ a. $\underline{\quad? \quad}$
 $AB + BC = CD + BC$ b. $\underline{\quad? \quad}$
 $AB + BC = AC$ c. $\underline{\quad? \quad}$
 $CD + BC = BD$ d. $\underline{\quad? \quad}$
 $AC = BD$ e. $\underline{\quad? \quad}$



In Exercises 10 and 11, give an argument for the statement, including a reason for each step.

10. If $\overleftrightarrow{AB} \perp \overleftrightarrow{EF}$, $\overleftrightarrow{CD} \perp \overleftrightarrow{EF}$, then $m\angle 1 = m\angle 2$.



11. If $m\angle 1 = 40^\circ$ and $m\angle 2 = 50^\circ$, then the angles are complementary.