

Practice B

For use with pages 96–101

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

- Reflexive property of equality: $m\angle T = \underline{\quad? \quad}$.
- Transitive property of equality: If $KL = MN$ and $\underline{\quad? \quad} = RW$, then $\underline{\quad? \quad}$.
- Addition property of equality: If $x = 5$, then $17 + x = \underline{\quad? \quad}$.
- Symmetric property of equality: If $BC = RL$, then $\underline{\quad? \quad}$.
- Substitution property of equality: If $m\angle A = 45^\circ$ and $m\angle B = m\angle A + 90^\circ$, then $\underline{\quad? \quad}$.
- Multiplication property of equality: If $m\angle A = 45^\circ$, then $\underline{\quad? \quad} (m\angle A) = 15^\circ$.

Complete the argument, giving a reason for each step.

7. $5(2x - 1) = 9x + 2$

Given

$10x - 5 = 9x + 2$

a. $\underline{\quad? \quad}$

$10x = 9x + 7$

b. $\underline{\quad? \quad}$

$x = 7$

c. $\underline{\quad? \quad}$

8. $8x - 5 = -2x - 15$

Given

$10x - 5 = -15$

a. $\underline{\quad? \quad}$

$10x = -10$

b. $\underline{\quad? \quad}$

$x = -1$

c. $\underline{\quad? \quad}$

9. $AB = BC$

Given

$AC = AB + BC$

a. $\underline{\quad? \quad}$

$AC = AB + AB$

b. $\underline{\quad? \quad}$

$AC = 2(AB)$

c. $\underline{\quad? \quad}$ 

10. $m\angle AEB = m\angle CED$

Given

$m\angle BEC = m\angle BEC$

a. $\underline{\quad? \quad}$

$m\angle AEB + m\angle BEC = m\angle CED + m\angle BEC$

b. $\underline{\quad? \quad}$

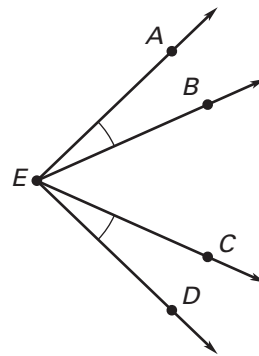
$m\angle AEC = m\angle AEB + m\angle BEC$

c. $\underline{\quad? \quad}$

$m\angle BED = m\angle CED + m\angle BEC$

d. $\underline{\quad? \quad}$

$m\angle AEC = m\angle BED$

e. $\underline{\quad? \quad}$ 

11. $\overleftrightarrow{AB} \perp \overleftrightarrow{EF}, \overleftrightarrow{CD} \perp \overleftrightarrow{EF}$

Given

$m\angle 1 = 90^\circ$

a. $\underline{\quad? \quad}$

$m\angle 2 = 90^\circ$

b. $\underline{\quad? \quad}$

$m\angle 1 = m\angle 2$

c. $\underline{\quad? \quad}$ 