LESSON 2.4

NAME _____ DATE _____

# Practice A

**For use with pages 96–101**

**Match the statement with the Property of Equality.**

**1.** If $JK = PQ$ and $PQ = ST$, then $JK = ST$.

**2.** If $m\angle S = 30°$, then $5° + m\angle S = 35°$.

**3.** If $AB + CD = EF + CD$, then $AB = EF$.

**4.** $AB = AB$

**5.** If $ST = 2$, then $ST + TU = 2 + TU$.

**6.** If $m\angle K = 45°$, then $3(m\angle K) = 135°$.

**7.** If $m\angle P = m\angle Q$, then $m\angle Q = m\angle P$.

**A.** Addition property

**B.** Reflexive property

**C.** Substitution property

**D.** Transitive property

**E.** Symmetric property

**F.** Multiplication property

**G.** Subtraction property

**In Exercises 8–13, use the property to complete the statement.**

**8.** Addition property of equality: If $AB = 5$, then $10 + AB =$ ? .

**9.** Multiplication property of equality: If $m\angle C = 30°$, then ? $(m\angle C) = 15°$.

**10.** Reflexive property of equality: $AF =$ ? .

**11.** Symmetric property of equality: If $m\angle DCF = m\angle MJC$, then ? .

**12.** Transitive property of equality: If $YZ = DB$ and ? $= JK$, then ? .

**13.** Substitution property of equality: If $MN = 3$, then $5(MN) =$ ? .

**Complete the argument, giving a reason for each step.**

**14.** $3(2x - 4) = 5x + 2$ Given

$6x - 12 = 5x + 2$ **a.** ?

$x - 12 = 2$ **b.** ?

$x = 14$ **c.** ?

**15.** $4x + 8 = 2x - 12$ Given

$2x + 8 = -12$ **a.** ?

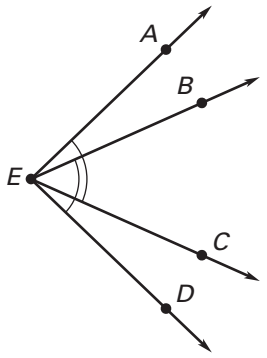
$2x = -20$ **b.** ?

$x = -10$ **c.** ?

**16.** $m\angle AEB + m\angle BEC = m\angle CED + m\angle BEC$ Given

$m\angle BEC = m\angle BEC$ **a.** ?

$m\angle AEB = m\angle CED$ **b.** ?




**In Exercises 17 and 18, solve the equation and state a reason for each step.**

**17.** $5(2x - 1) = 9x + 4$

**18.** $-4(x - 5) = 13$