



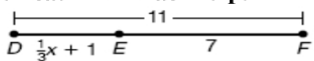
Geometry Chapter 2 Section 5 Worksheet II
Como Park Senior High School

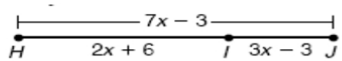
Name _____ Period _____ Due Date: _____

For Exercises 1-12, write the letter of each property next to its definition.

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| 1. If $a = b$, then $b = a$ _____ | A. Addition Property of Equality |
| 2. If $a = b$, then $ac = bc$ _____ | B. Subtraction Property of Equality |
| 3. $\overline{AB} = \overline{AB}$ _____ | C. Multiplication Property of Equality |
| 4. $a = a$ _____ | D. Division Property of Equality |
| 5. If $a = b$, then $a + c = b + c$ _____ | E. Reflexive Property of Equality |
| 6. If $a(b + c) = ab + ac$ _____ | F. Symmetric Property of Equality |
| 7. If $a = b$ and $b = c$, then $a = c$ _____ | G. Transitive Property of Equality |
| 8. If $\angle P \cong \angle Q$, then $\angle Q \cong \angle P$ _____ | H. Substitution Property of Equality |
| 9. If $\angle A \cong \angle B$ and $\angle B \cong \angle C$, then $\angle A \cong \angle C$ _____ | I. Distributive Property |
| 10. If $a = b$, and $c \neq 0$, then $\frac{a}{c} = \frac{b}{c}$ _____ | J. Reflexive Property of Congruence |
| 11. If $a = b$, then b can be substituted for a _____ | K. Symmetric Property of Congruence |
| 12. If $a = b$, then $a - c = b - c$ _____ | L. Transitive Property of Congruence |

Write a justification for each step.

13. 
- DE + EF = DF _____
- $\left(\frac{1}{3}x + 1\right) + 7 = 11$ _____
- $\frac{1}{3}x + 8 = 11$ _____
- $\frac{1}{3}x = 3$ _____
- $x = 9$ _____

14. 
- HJ = HI + IJ _____
- $7x - 3 = (2x + 6) + (3x - 3)$ _____
- $7x - 3 = 5x + 3$ _____
- $7x = 5x + 6$ _____
- $2x = 6$ _____
- $x = 3$ _____