

Chapter 4: Proofs
Lesson 4-1: Using Properties
Homework

name _____
 date _____
 period ____

Name the property that justifies each statement.

- _____ 1. If $x + y = 7$ and $x - y = 13$, then $2x = 20$.
- _____ 2. If $AB + BC = AC$ and $AC = WX + XZ$, then $AB + BC = WX + XZ$.
- _____ 3. If $4XY = 2PQ$, then $2XY = PQ$.
- _____ 4. If $AB + EF = PQ + EF$, then $AB = PQ$.
- _____ 5. If $8 = 5x - 2$, then $5x - 2 = 8$.
- _____ 6. If $IJ = 30$ and $KP = 30$, then $IJ = KP$.
- _____ 7. If $0.5 CD = 0.5YZ$, then $CD = YZ$.
- _____ 8. If $5(x - \frac{2}{5}) = 3$, then $5x - 2 = 3$.
- _____ 9. If $Y = x - 5$ and $x - 5 = 15$, then $Y = 15$.
- _____ 10. If $m\angle A + m\angle B = 90$ and $m\angle B = 40$, then $m\angle A + 40 = 90$.

11. Given: $\frac{8-x}{2} = x - 2$

Prove: $x = 4$

Statements	Reasons
a. $\frac{8-x}{2} = x - 2$	a.
b. $8 - x = 2(x - 2)$	b.
c. $8 - x = 2x - 4$	c.
d. $12 = 3x$	d.
e. $4 = x$	e.
f. $x = 4$	f.