Name: _____ Hour: _____

Introduction to Proofs

Complete the 2 column proofs by filling in the missing parts. If necessary, draw diagrams using the given information.

1.

Statements	Reasons
$x + 6 = 10$	
$x = 4$	

2.

Statements	Reasons
$5x = 10$	
$x = 2$	

3.

Statements	Reasons
$m\angle A = m\angle B$	Given
$m\angle B = m\angle C$	Given
	Transitive Property of Equality

4.

Statements	Reasons
$\angle ABC \cong \angle CBA$	

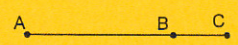
5.

Statements	Reasons
$AB = DF$	Given
$DF = AB$	

6.

Statements	Reasons
$AB = CD$	
$AB + EF = CD + EF$	

7. Use the diagram to complete the proof:



Statements	Reasons
	Segment Addition Postulate

Worksheet Section 2.5

Name: _____

Building a System of Knowledge (Intro to Proofs)

Directions: Match the properties with the algebraic sentences.

9. $a + c = b + c$ _____

10. $a - c = b - c$ _____

11. $ac = bc$ _____

12. If $a = x$, then $a + b = x + b$ _____

13. $a(b + c) = ab + ac$ _____

14. $a = a$ _____

15. If $a = b$, then $b = a$ _____

16. If $a = b$ and $b = c$, then $a = c$ _____

17. $a \cong a$ _____

18. If $a \cong b$, then $b \cong a$ _____

19. If $a \cong b$ and $b \cong c$, then $a \cong c$ _____

20. $\frac{a}{c} = \frac{b}{c}$ _____

Addition Property of Equality

Distributive Property

Division Property of Equality

Multiplication Property of Equality

Reflexive Property of Congruence

Reflexive Property of Equality

Substitution Property of Equality

Subtraction Property of Equality

Symmetric Property of Congruence

Symmetric Property of Equality

Transitive Property of Congruence

Transitive Property of Equality