Geometry

Unit 3 Lesson 1

Name: Key

Date: 10/7/09 Period: 1 2 3 4 5 6

Standards: 7.0. 16.0 Holt: 3.3 p. 163

Objective To write an algebraic proof

Warm Up WU 1. $8x - 24 = 4x + 20$

$-4x \quad -4x \quad -4x \quad +24$

$\frac{4x}{4} = \frac{44}{4} \rightarrow \boxed{x = 11}$

WU 1. $2(x-3) = 36$

$2x - 6 = 36$

$+6 \quad +6$

$\frac{2x}{2} = \frac{42}{2} \rightarrow \boxed{x = 21}$

Proof Writing 101

Given: $2x + 4 = 8x + 20$

Prove: $x = -8/3$

The Math goes here ↓

Statement	Reason
$2x+4 = 8x+20$ $2x = 8x+16$ $-8x$ $-6x = 16$ $x = -8/3$	given subtraction property subtraction property division property

The Reason goes here

Q: What is the difference between a postulate and a theorem?

- a theorem has to be proven
- a postulate is simply agreed upon

Possible Reasons

1. Given
2. Definitions [diagrams]
3. Property
4. Postulate
5. Theorem

Practice 1 (try yourself)

Given: $4(2x + 3) = 68$

Prove: $x = 7$

Statement	Reason
$4(2x+3) = 68$ $8x + 12 = 68$ $8x = 56$ $x = 7$	given distributive property subtraction property division property