Geometry

Name:

Unit 3 Lesson 1

Date: Period: 1 2 3 4 5 6

Standards: 7.0. 16.0 Holt: 3.3 p. 163

Objective

Warm Up WU 1. $8x - 24 = 4x + 20$ WU 1. $2(x-3) = 36$

Proof Writing 101

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

Prove: $x = -8/3$

Statement	Reason

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

Possible Reasons

1.
2.
3.
4.
5.

Window

Practice 1

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

Prove: $x = 7$

Statement	Reason

Geometry

Unit 3 Lesson 1

Name:

Date: Period: 1 2 3 4 5 6

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Objective To write an algebraic proof

Warm Up WU 1. $8x - 24 = 4x + 20$ WU 1. $2(x-3) = 36$

Proof Writing 101

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

Prove: $x = -8/3$

The Math goes here ↓

Statement	Reason

The Reason goes here

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

Possible Reasons

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

Practice 1

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

Prove: $x = 7$

Statement	Reason

Geometry

Unit 2 Lesson 5

Name:

Date: Period: 1 2 3 4 5 6

Standards: 2.0, 13.0 Holt: 1-4 Pairs of Angles p.29

Objective

Warm Up

Supplementary + Complementary

Q1: What does it mean for two angles to be supplementary?

Q2: How do you know that for sure?

▼ **Application: ∠1 and ∠2 are supplementary**

Statement	Reason

Q3: What does it mean for two angles to be complementary?

Q4: How do you know that for sure?

▼ **Application:** ∠1 and ∠2 are supplementary

Statement	Reason

Example 1 Given: ∠1 and ∠2 are supplementary Prove: ∠1 ≅ ∠3

∠2 and ∠3 are supplementary

Statements	Reasons

Geometry^{0809}

Unit 3 Lesson 3 Sirimanne Edition

Name:
Date: Period: 1 2 3 4 5 6

Standards: 2.0, 13.0 Holt: 1-4 Pairs of Angles p.29

Objective To write a proof involving supplementary and complementary as demonstrated by guided practice, independent work, and homework.

Warm Up 1.) If ∠1 and ∠2 are supplementary, then what is ∠2 when ∠1 =47°
2.) If ∠1 and ∠2 are complementary, then what is ∠1 when ∠2 =37°

Supplementary + Complementary

Q1: What does it mean for two angles to be supplementary?

It means that they add up to 180°

Q2: How do you know that for sure? Because the definition of supplementary says

▼ **Application: ∠1 and ∠2 are supplementary**

Statement	Reason
∠1 and ∠2 are supplementary	
∠1 + ∠2 = 180°	definition of supplementary

Q3: What does it mean for two angles to be complementary?

It means that they add up to 190°

Q4: How do you know that for sure? Because the definition of complementary says

▼ **Application:** ∠1 and ∠2 are complementary

Statement	Reason
∠1 and ∠2 are complementary	
∠1 + ∠2 = 90°	definition of complementary

Example 1 Given: ∠1 and ∠2 are supplementary Prove: ∠1 ≅ ∠3
∠2 and ∠3 are supplementary

Statements	Reasons
1. ∠1 and ∠2 are supplementary	Given
2. m∠1 +m∠2 = 180°	Def of supplementary
3. ∠2 and ∠3 are supplementary	Given
4. m∠2 +m∠3 = 180°	Def of supplementary
5. m∠1 +m∠2 =m ∠2 +m∠3	Substitution Property
6. m∠1 +=m∠3	Subtraction Property
7. ∠1 ≅ ∠3	Def of Congruent Angles