NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Concept/Main Idea** | **Notes** |
| **Triangle Sum Theorem** |  |
| **Parallel Postulate** |  |
| **Proof** | **https://dr282zn36sxxg.cloudfront.net/datastreams/f-d%3Ade020d61c54645bbb26722320dec7eeabc1e907ececc67f42e8725da%2BIMAGE%2BIMAGE.1**Given: ΔABCProve: *m*∠1 + *m*∠2 + *m*∠3 = 180°Statements Reasons1. $\overleftrightarrow{AD}$ || $\overbar{CB}$ 1. 2. *m*∠4 + *m*∠3 + *m*∠5 = 180° 2. 3. *m*∠4 = *m*∠1; *m*∠5 = *m*∠2 3. 4. *m*∠1 + *m*∠3 + *m*∠2 = 180° 4.  |
| **Problem 1** | What are the values of x, y, and z in the diagram? |
| **Triangle Exterior Angle Theorem** | The measure of each \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a triangle equals the sum of the measures of its two \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| **Problem 2** | A. What is the measure of ∠1? B. What is the measure of ∠2? |

**APPLICATION**

1. Find the m∠1. 2. Find the value of each variable.

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3. Find the m∠2. 4. Solve for x.

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**COMPREHENSION**

5.