

TARGET 2B: UNDERSTANDING CONDITIONAL STATEMENTS

| I can ... | Sample Question | Evidence of Understanding | What level is your understanding? 4 = complete 3 = substantial 2 = developing 1 = minimal |
|---|--|---------------------------|---|
| 1. I can write a statement in if-then form. | Write the following statements as conditionals: <ol style="list-style-type: none"> 1. All Dogs have 4 legs 2. Every Rectangles is a parallelogram 3. The angles of a linear pair are supplementary. 4. All lines with the same slope are parallel | | |
| 2. I can identify the hypothesis and conclusion of a conditional statement. | Identify the hypothesis and conclusion in each of the following statements: <ol style="list-style-type: none"> 1. Two lines are perpendicular if their slopes are opposite reciprocals 2. If I come home after curfew then I will be grounded 3. All quadrilaterals have four sides. | | |
| 3. I can write the converse, inverse, and contrapositive of a conditional statement, and when they are false, give a counterexample | Assume each of the given statements are true: A. Write the converse, inverse, and contrapositive of the following statements. <ol style="list-style-type: none"> 1. If $3x-7=29$, then $x=12$. 2. If a quadrilateral has four congruent sides then it is a rhombus. 3. If B is the midpoint of segment AC, then segment AB is the same length as segment BC. B. Determine if the converse, inverse, and contrapositive are also true. | | |
| 4. I can write definitions as bi-conditional statements. | Determine if the following statements are valid, and are therefore definitions: <ol style="list-style-type: none"> 1. A person lives in Mississippi if and only if that person lives in the United States. 2. A quadrilateral is a rectangle if and only if it has two pairs of opposite sides that are the same length 3. A triangle is equilateral if and only if it has three congruent sides. | | |