1. Suppose , where a, x, and y are positive integers such that .

Given this, it follows that , since . By factoring the right side of the equality, we find that . Thus, given that may be represented by some constant c, this equality may be represented as where , for all . This proves that .

1. B/C: When , this equation is equivalent to , which is true.

I/S: Let ; suppose for

Since is true and, by our induction hypothesis, , this final statement must also be true.