

Name _____

No aids allowed. Answer all questions on test paper. Use backs of sheets if necessary.

Suppose that the precondition in Algorithm 1.1 is changed to say: " $x \geq 0 \wedge y > 0 \wedge x, y \in \mathbb{Z}$," where $\mathbb{Z} = \{\dots, -2, -1, 0, 1, 2, \dots\}$. Is the Algorithm still correct in this case? What if it is changed to to the following: " $y > 0 \wedge x, y \in \mathbb{Z}$ "?