Math 270 - Basic Discrete Mathematics Practice Quiz on Section 8.1

Directions: Answer the problems given below.

1. Let $A = \{1, 2, 3, 4, 5, 6\}$, and let R be the relation on A defined as follows:

For every
$$x, y \in A$$
, $xRy \Leftrightarrow 4|(x^2 - y^2)$.

a. Write out the relation R as a set of ordered pairs.

b. Draw the directed graph of R.