1. [**10 points**] Let $A = \{1, 2, 3, 4, 5\}$. Define the relation R on A to be

$$R = \{(a, b) \in A \times A \mid a + b \text{ is odd.}\}$$

(a) Write out all the ordered pairs which are members of R.

(b) What are the domain and range of R? Explain.

2. [**10 points**] Let $B = \{n \in \mathbb{Z} \mid 2 \leq n \leq 100\}$. Define the relation R on B to be

$$R = \{(a, b) \in B \times B \mid (a \mid b \text{ and } a \neq b)\}$$

(a) Give three examples of ordered pairs that are members of R.

(b) What are the domain and range of R? Explain.