

Step 1: List all pairs in  $A \times A$

$$A = \{13, 23, 28, 30, 60\}$$

$$R = \{(a, b) \in A \times A : a \mid b\}$$

$$A \times A = \{(13, 13), (13, 23), (13, 28), (13, 30), (13, 60), \\ (23, 13), (23, 23), (23, 28), (23, 30), (23, 60), \\ (28, 13), (28, 23), (28, 28), (28, 30), (28, 60), \\ (30, 13), (30, 23), (30, 28), (30, 30), (30, 60), \\ (60, 13), (60, 23), (60, 28), (60, 30), (60, 60)\}$$

Step 2: Check each pair for divisibility

- Go through each pair and ask "does  $a$  divide  $b$ "

$$A \times A = \{ \underline{(13, 13)}, \cancel{(13, 23)}, \cancel{(13, 28)}, \cancel{(13, 30)}, \cancel{(13, 60)}, \\ \cancel{(23, 13)}, \underline{(23, 23)}, \cancel{(23, 28)}, \cancel{(23, 30)}, \cancel{(23, 60)}, \\ \cancel{(28, 13)}, \cancel{(28, 23)}, \underline{(28, 28)}, \cancel{(28, 30)}, \cancel{(28, 60)}, \\ \cancel{(30, 13)}, \cancel{(30, 23)}, \cancel{(30, 28)}, \underline{(30, 30)}, \underline{(30, 60)}, \\ \cancel{(60, 13)}, \cancel{(60, 23)}, \cancel{(60, 28)}, \underline{(60, 30)}, \underline{(60, 60)} \}$$

Step 3: Combine remaining pairs for final answer:

$$R = \{(13, 13), (23, 23), (28, 28), (30, 30), (30, 60), (60, 60)\}$$