

Name: _____ Period: _____ Date: _____

Formalizing Relations and Functions Bell Work

Write the domain and range of the relation given in each case. Also tell whether the relation is a function.

1) $R = \{(-1,2), (2,1), (0,2), (3,4), (1,5)\}$

2) $R = \{(0,1), (3,4), (5,6), (3,-1), (1,5)\}$

3) $R = \{(0.1,0.2), (0.2,0.3), (0.1,0.4)\}$

4) $R = \{(1,1), (2,2), (3,3), (4,4), (5,5)\}$

Formalizing Relations and Functions Bell Work**Answer Key**

Write the domain and range of the relation given in each case. Also tell whether the relation is a function.

1) $R = \{(-1,2),(2,1),(0,2),(3,4),(1,5)\}$

Domain: **$\{-1,0,1,2,3,4\}$** Range: **$\{1,2,4,5\}$**

Since each x-value is associated with only one value of y, so the relation is a function.

2) $R = \{(0,1),(3,4),(5,6),(3,-1),(1,5)\}$

Domain: **$\{0,1,3,5\}$** Range: **$\{-1,1,4,5,6\}$**

Since the x-value 3 is associated with more than one value of y (4 and -1), so the relation is not a function.

3) $R = \{(0.1,0.2),(0.2,0.3),(0.1,0.4)\}$

Domain: **$\{0.1,0.2\}$** Range: **$\{0.2,0.3,0.4\}$**

Since the x-value 0.1 is associated with more than one value of y (0.2 and 0.3), so the relation is not a function.

4) $R = \{(1,1),(2,2),(3,3),(4,4),(5,5)\}$

Domain: **$\{1,2,3,4,5\}$** Range: **$\{1,2,3,4,5\}$**

Since each x-value is associated with only one value of y, so the relation is a function.