Principles of Algebra Name/Date Clee / Today

WS 6C.1 – Relations

#1-3, For each relation, state the domain and range. Then create a table, a mapping, and a graph.

1. $\{(2, 6), (10, 4), (2, -8), (-6, 0)\}$

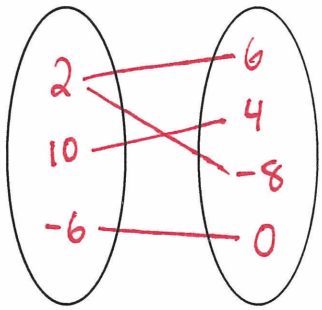
Domain $\{ 2, 10, -6 \}$

Range $\{ 6, 4, -8, 0 \}$

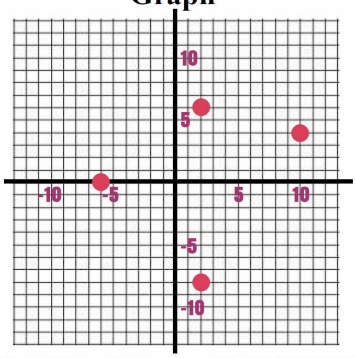
Table

x	y
2	6
10	4
2	-8
-6	0

Mapping



Graph



All graphs must have a scale on each axis

2. $\{(-6, 0), (12, 1), (-6, 2), (12, 5)\}$

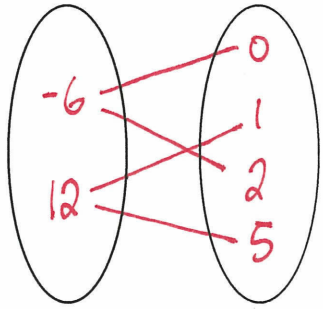
Domain $\{ -6, 12 \}$

Range $\{ 0, 1, 2, 5 \}$

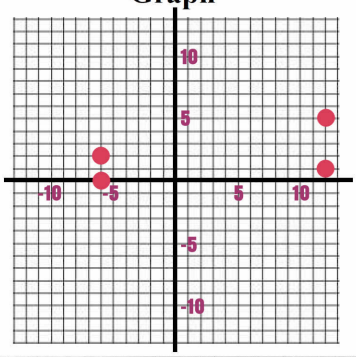
Table

x	y
-6	0
12	1
-6	2
12	5

Mapping



Graph



3. $\{(8, 2), (8, -4), (8, 0), (8, 6)\}$

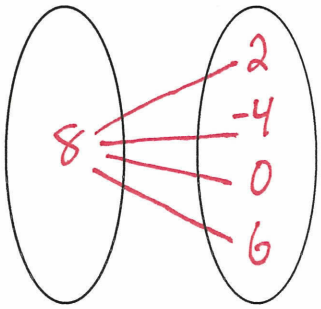
Domain $\{ 8 \}$

Range $\{ 2, -4, 0, 6 \}$

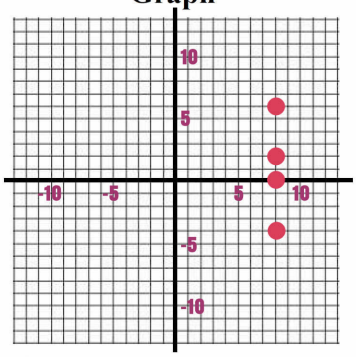
Table

x	y
8	2
8	-4
8	0
8	6

Mapping



Graph



Complete each ordered pair so that it is a solution to $3x + y = 20$.

4. $(2, \underset{y}{14})$ $\underset{x}{}$

$3(2) + y = 20$

$6 + y = 20$

$y = 14$

5. $(\underset{x}{5}, 5)$ $\underset{y}{}$

$3x + (5) = 20$

$3x = 15$

$x = 5$

Complete each ordered pair so that it is a solution to $2x + y = 32$.

6. $(\underset{x}{15}, 2)$ $\underset{y}{}$

$2x + (2) = 32$

$2x = 30$

$x = 15$

7. $(12, \underset{y}{8})$ $\underset{x}{}$

$2(12) + y = 32$

$24 + y = 32$

$y = 8$

Complete each ordered pair so that it is a solution to $5x - y = 12$.

8. $(20, \underset{y}{88})$ $\underset{x}{}$

$5(20) - y = 12$

$100 - y = 12$

$-y = -88$

$y = 88$

9. $(\underset{x}{1}, -7)$ $\underset{y}{}$

$5x - (-7) = 12$

$5x + 7 = 12$

$5x = 5$

$x = 1$