

Is each of the relations below a function?

1. $(5, -3), (6, -2), (8, -3), (2, 7), (4, -1)$

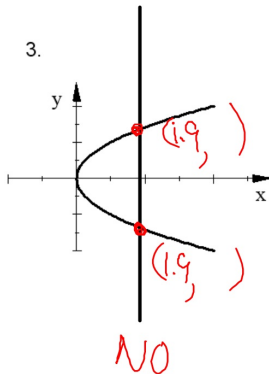
Yes

2.

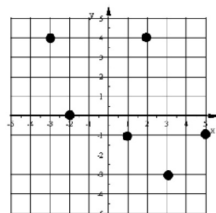
X	Y
-3	9
2	12
7	35
-4	-24
2	4

No

3.



4.



5. Given $f(c) = c^2 + 3c$

find $f(-4)$ and $f(10)$

$$f(-4) = (-4)^2 + 3(-4) \\ = 16 + -12 \\ f(-4) = 4$$

$$f(10) = 10^2 + 3(10) \\ = 100 + 30 \\ f(10) = 130$$

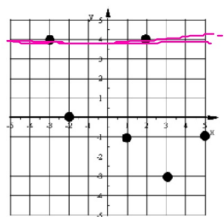
6. Find the domain and range of Problem #1

1. $(2, 3), (4, 5), (6, 7), (8, 9)$

$$D \{2, 4, 6, 8\}$$

$$R \{-3, -2, -1, 7\}$$

7. Find the domain and range of Problem #4



$$D \{-3, -2, 1, 2, 3, 5\}$$

$$R \{-3, -1, 0, 4\}$$

Given: $w(c) = 4c + 1$ and $m(r) = 2r - 3$

Find: $7w(2) + 6m(4)$

$$7 \cdot 9 + 6 \cdot 5 \\ = 63 + 30 \\ = 93$$

$$w(2) = 4(2) + 1 = 8 + 1 = 9 \\ m(4) = 2(4) - 3 = 8 - 3 = 5$$