Is each statement true or false?

1. The graph of a direct variation may pass through (-2, 4)

True

2. The graph of direct variation may pass through (0,3)

False, if you connect (0,3) to (0,0) you would get a vertical line → IT'S NOT A Function

3. If you triple an x-value of a direct variation, the y-value also triples.

TRUE $\frac{y}{x}=k$ To get the same k after multiplying y by 3 you'd have to mult x by 3

Write a function rule for each table of values:

1.

X	Y
-20	-2.5
-4	-0.5
32	4
42	5.25
56	7

$y=\frac{x}{8}$

2.

X	Y
-5	-62.6
13	-44.6
38	-19.6
75	17.4
103	45.4

$y=x-57.6$

3.

X	Y
-4	34
-1	16
0	10
3	-8
8	-38

$y=-6x+10$

4. Given these functions: $g(x) = 2x^2 - 4x$ and $k(t) = -3t + 5$

Find the value of $10g(3) + 2k(4)$

$g(3)=2(3)^2+4(3)=6$

$k(4)=-3(4)+5=-7$

$=10(6)-2(-7)=(46)$

5. Is each a function?

a) (7, 6),(3,-1),(-2,6),(4,3)

Yes

b)

X	Y
-1	2
5	10
4	-6
8	17
5	1

NO

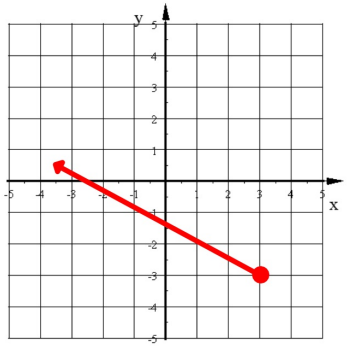
6. State the domain and range for each.

a) (7,3),(-2,8),(4,9),(6,3),(-2,-2)

D: $\{-2,4,6,7\}$

R: $\{-2,3,8,9\}$

b)



D: $x \leq 3$

R: $y \geq -3$