$\qquad$
State whether the relations below represent functions. Explain your reasoning.
a.

| $x$ | $y$ |
| :---: | :---: |
| -2 | -8 |
| 0 | 4 |
| 2 | -8 |
| 4 | -14 |

b.

Function: Yes No
Explanation:
Function: Yes No
Explanation:
c. $\{(1,2),(3,6),(5,4),(5,8),(7,10)\}$
Function: Yes No
Explanation:

Evaluated $f(\mathrm{x})=x^{2}-6 x+13$ for $f(-4)$.
What is the value of $a$ ?

$$
2(a+4)=-a-14+3 a
$$

Find $f(4)$, when $f(x)=19 x-4$
Solve for $x$.

$$
-7-(-2 x)=3+2 x-10
$$

Solve $P V=N R T$ for $R$.

Solve for c and justify your steps:

$$
82 x+5=80 x-7
$$

Translate and solve the following:

A fourth of a number less than eleven is equal to the number doubled

## Choose ALL correct answers.

The ordered pair $(-3,4)$ is a solution to a system of equations. One of the lines in the system is $-2 x+y=10$. Which of the following could be the other line? (LT 8)
a. $-4 x-5 y=-8$
b. $3 y-x=9$
c. $y-3 x=13$
d. $2 x+6 y=-18$

Write the equation for a line that passes through the points $(-2,8)$ and $(4,2)$.

Graph the following function on the graph at the right: $y=4 x-3$.


Graph the following function on the graph at the right: $3 x-9 y=18$.


