function Notation

$f(x)=$ f of x

function in terms of "x"

$y = 2x + 3$

$x = 3$ $\quad y = 2(3) + 3$
$\qquad\qquad y = 9$

$\quad x = 3 \quad y = 9$

$x = -4$ $\qquad y = 2(-4) + 3$
$\qquad\qquad y = -8 + 3$
$\qquad\qquad y = -5$

$\quad x = -4 \quad y = -5$

$$y = 2x + 3$$

$$x = a \qquad y = 2(a) + 3$$

$$x = x - 2$$

$$f(x) = 2x + 3$$

$$f(3) = 2(3) + 3$$

$$\boxed{f(3) = 9}$$

$$f(a) = 2(a) + 3$$

$$f(x-2) = 2(x-2) + 3$$

$$= 2x - 4 + 3$$

$$\boxed{f(x-2) = 2x - 1}$$

$$f(x) = -2x + 7$$

$$f(2) = +3$$

$$f(-3) = 13$$

$$f(m) = -2m + 7$$

$$f(x+2) = -2(x+2) + 7$$
$$= -2x - 4 + 7$$
$$= -2x + 3$$

$$y = x^2 + x - 2$$

$x = 2 \quad y = (2)^2 + (2) - 2$
$$= 4 + 2 - 2 = 4$$
$$\boxed{x = 2 \quad y = 4}$$

$x = -3 \quad y = (-3)^2 + (-3) - 2$
$$= 9 - 3 - 2 = 4$$
$$x = -3 \quad y = 4$$

$x = m \quad y = (m)^2 + (m) - 2$

$x = x - 2$

$$f(x) = x^2 + x - 2$$

$$f(2) = (2)^2 + (2) - 2 = 4$$

$$f(m) = (m)^2 + (m) - 2$$

$$f(x-2) = (x-2)^2 + (x-2) - 2$$

$$f(x) = 2x^3 + 3x^2 - 7$$

$$f(2) = 2(2)^3 + 3(2)^2 - 7$$
$$= 2(8) + 3(4) - 7$$
$$= 16 + 12 - 7 = 21$$

$$f(-3) = 2(-3)^3 + 3(-3)^2 - 7$$
$$= 2(-27) + 3(9) - 7$$
$$= -54 + 27 - 7 = -34$$

$$f(a) = 2(a)^3 + 3(a)^2 - 7$$

$$f(x) = |2x - 5| + 2$$

$$f(-2) = |2(-2) - 5| + 2$$

$$\boxed{f(-2) = 11}$$

$$|-4 - 5| + 2$$
$$|-9| + 2$$
$$9 + 2$$

$$f(3) = \qquad 11$$

$$2(x+1)$$
$$2x + 2$$

$$f(x+1) = |2(x+1) - 5| + 2$$

$$= |2x + 2 - 5| + 2$$

$$\boxed{f(x+1) = |2x - 3| + 2}$$

$$y = |x + 2| - 5$$

$$X = 6 \qquad y = |(6) + 2| - 5$$
$$y = |8| - 5 = 8 - 5 = 3$$
$$X = 6 \quad y = 3$$

$$X = -8 \qquad y = |(-8) + 2| - 5$$
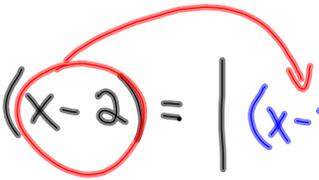$$= |-6| - 5 = 6 - 5 = 1$$
$$X = -8 \quad y = 1$$

$$X = a \qquad y = |(a) + 2| - 5$$

$$X = X - 2$$

$$f(x) = |x + 2| - 5$$

$$f(-8) = |(-8) + 2| - 5$$

$$f(-8) = 1$$

$$f(x-2) = |(x-2) + 2| - 5$$

$$= |x| - 5$$

$$f(x+4) = |(x+4) + 2| - 5$$

$$= |x+6| - 5$$

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