

Function

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

$$f(1) =$$

$$f(-1) =$$

$$f\left(\frac{1}{2}\right) =$$

$$f\left(-\frac{1}{2}\right) =$$

$$f(0) =$$

$$f(\sqrt{2}) =$$

$$f[f(x)] = ?$$



$$\begin{aligned} f(-2x + 3) &= -2(-2x + 3) + 3 = \\ &= 4x - 6 + 3 \\ &= 4x - 3 \end{aligned}$$

$$f(x) = ax + b \quad a = ?$$

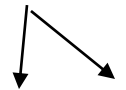
$$b = ?$$

$$f[f(x)] = 4x - 3$$

$$\begin{aligned} f(ax + b) &= a(ax + b) + b = \\ &= a^2x + ab + b \end{aligned}$$

$$a^2x + ab + b = 4x - 3$$

$$a^2 = 4$$



$$a = -2 \quad a = 2$$

$$ab + b = -3$$

$$a = 2$$

$$2b + b = -3$$

$$3b = -3$$

$$b = -1$$

$$Y = 2x - 1$$

$$a = -2$$

$$-2b + b = -3$$

$$-b = -3$$

$$b = 3$$

$$Y = -2x + 3$$