

S.83

331

$$f(x) = -3x + 1$$

a) $x=2$

$$f(2) = -3 \cdot 2 + 1 = -6 + 1 = -5$$

b) $x=0$

$$f(0) = -3 \cdot 0 + 1 = 0 + 1 = 1$$

c) $x=-1$

$$f(-1) = -3 \cdot (-1) + 1 = 3 + 1 = 4$$

d) $x=1,5$

$$f(1,5) = -3 \cdot 1,5 + 1 = -4,5 + 1 = -3,5$$

332

$$h(x) = 2x^2 - 4$$

$$1^2 = 1 \cdot 1$$

a) $x=1$

$$\begin{aligned} h(1) &= 2 \cdot 1^2 - 4 \\ &= 2 \cdot 1 - 4 = 2 - 4 = -2 \end{aligned}$$

b) $x=0$

$$\begin{aligned} h(0) &= 2 \cdot 0^2 - 4 \\ &= 2 \cdot 0 - 4 = 0 - 4 = -4 \end{aligned}$$

c) $x=-3$

$$\begin{aligned} h(-3) &= 2 \cdot (-3)^2 - 4 \\ &= 2 \cdot 9 - 4 \\ &= 18 - 4 = 14 \end{aligned}$$

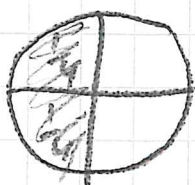
d) $x=\frac{1}{2}$

$$\begin{aligned} h\left(\frac{1}{2}\right) &= 2 \cdot \left(\frac{1}{2}\right)^2 - 4 \\ &= 2 \cdot \frac{1}{4} - 4 \\ &= \frac{1}{2} - 4 \end{aligned}$$

$$\left(\frac{1}{2}\right)^2 = \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$$

$$\frac{2}{1} \cdot \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$$

$$= -\frac{7}{2} = -3\frac{1}{2} \quad (= -3,5)$$



$$\begin{aligned} &\frac{1}{2} - \frac{4}{1} \\ &= \frac{1}{2} - \frac{8}{2} = -\frac{7}{2} \end{aligned}$$

333

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

x?

a) $f(x) = 2$

$$3x + \overset{0}{2} = \overset{0}{2}$$

// -2

$$3x = 0$$

// :3

$$x = 0$$

$$f(0) = 3 \cdot 0 + 2 = 2$$

b) $f(x) = -4$

$$3x + \overset{-6}{2} = \overset{-6}{-4}$$

// -2

$$3x = -6$$

// :3

$$x = -2$$

$$-4 - 2 = -6$$

$$f(-2) = 3 \cdot (-2) + 2 = -6 + 2 = -4$$

c) $f(x) = 0$

$$3x + \overset{-2}{2} = \overset{-2}{0}$$

// -2

$$3x = -2$$

// :3

$$x = -\frac{2}{3} \quad (= -0,666\dots)$$

$$f(-\frac{2}{3}) = 3 \cdot (-\frac{2}{3}) + 2$$

$$= -\frac{6}{3} + 2$$

$$= -2 + 2 = 0$$

d) $f(x) = \frac{1}{2}$

$$3x + 2 = \frac{1}{2}$$

// -2

$$3x = -\frac{3}{2}$$

// :3

$$x = -\frac{1}{2}$$

$$-\frac{3}{2} : 3$$

$$= -\frac{3}{2} \cdot \frac{1}{3} = -\frac{3}{6} = -\frac{1}{2}$$

$$\begin{aligned} &\frac{1}{2} - \frac{2}{1} \\ &= \frac{1}{2} - \frac{4}{2} \\ &= -\frac{3}{2} \end{aligned}$$