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s.83

$$g(x) = 4x - 2$$

Mikä on muuttuja (x)?

$$a) g(x) = 2$$

$$4x - 2 = 2 \quad \begin{array}{l} \parallel +2 \\ \parallel :4 \end{array}$$

$$\frac{4x}{4} = \frac{4}{4}$$

$$x = 1$$

$$g(1) = 4 \cdot 1 - 2 = 4 - 2 = 2$$

$$b) g(x) = -2$$

$$4x - 2 = -2 \quad \begin{array}{l} \parallel +2 \\ \parallel :4 \end{array}$$

$$\frac{4x}{4} = \frac{0}{4}$$

$$x = 0$$

$$c) g(x) = 0$$

$$4x - 2 = 0 \quad \begin{array}{l} \parallel +2 \\ \parallel :4 \end{array}$$

$$\frac{4x}{4} = \frac{2}{4}$$

$$x = \frac{1}{2} (= 0,5)$$

$$d) g(x) = 10$$

$$4x - 2^0 = 10 \quad \begin{array}{l} \parallel +2 \\ \parallel :4 \end{array}$$
$$\frac{4x}{4} = \frac{12}{4}$$
$$x = 3$$

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$$h(x) = -5x - 2$$

$$a) h(x) = 3? \quad -5x - 2^0 = 3^5 \quad \begin{array}{l} \parallel +2 \\ \parallel :(-5) \end{array}$$
$$\frac{-5x}{-5} = \frac{5}{-5}$$
$$x = -1$$

$$b) h(x) = -2? \quad -5x - 2^0 = -2^0 \quad \begin{array}{l} \parallel +2 \\ \parallel :(-5) \end{array}$$
$$\frac{-5x}{-5} = \frac{0}{-5}$$
$$x = 0$$

$$h(0) = -5 \cdot 0 - 2$$
$$= 0 - 2$$
$$= -2$$

$$c) h(x) = 0? \quad -5x - 2^0 = 0^2 \quad \begin{array}{l} \parallel +2 \\ \parallel :(-5) \end{array}$$
$$\frac{-5x}{-5} = \frac{2}{-5}$$
$$x = -\frac{2}{5} (= -0,4)$$

$$d) \quad h(x) = -9,5? \quad -5x - \overset{0}{2} = -\overset{-7,5}{9,5} \quad \parallel +2$$

$$\frac{-5x}{-5} = \frac{-7,5}{-5} \quad \parallel :(-5)$$

$$x = 1,5$$

$$\begin{array}{r} 1,5 \\ 5 \overline{) 7,5} \\ \underline{-5 } \\ 25 \\ \underline{-25} \\ 0 \end{array}$$

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$$f(y) = y^2 - 3$$

$$a) \quad f(y) = 6? \quad y^2 - \overset{0}{3} = \overset{9}{6} \quad \parallel +3$$

$$y^2 = 9 \quad \parallel \sqrt{}$$

$$y = \pm \sqrt{9}$$

$$y = \pm 3 \quad (3 \text{ tai } -3)$$

$$b) \quad f(y) = 22?$$

$$y^2 - \overset{0}{3} = \overset{25}{22} \quad \parallel +3$$

$$y^2 = 25$$

$$y = \pm \sqrt{25}$$

$$y = \pm 5$$

$$c) f(y) = -3?$$

$$y^2 - \overset{0}{\cancel{3}} = -\overset{0}{\cancel{3}} \quad || +3$$

$$y^2 = 0$$

$$y = \pm\sqrt{0}$$

$$y = 0$$

$$d) f(y) = 0?$$

$$y^2 - \overset{0}{\cancel{3}} = \overset{3}{\cancel{0}} \quad || +3$$

$$y^2 = 3$$

$$y = \pm\sqrt{3}$$

$$2^2 = 4$$

$$\sqrt{4} = 2$$

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