Opgave 1

$$f(-3)$$
$$2 * (-3) + 3$$
$$-6 + 3$$
$$-3$$

$$f(-2)$$
$$2 * (-2) + 3$$
$$-4 + 3$$
$$-1$$

$$f(0)$$
$$2 * (0) + 3$$
$$0 + 3$$
$$3$$

$$2 * 4 + 3$$
$$8 + 3$$
$$11$$

Opgave 2

a.

$$f(x + 3)$$
$$2(x + 3) + 4$$
$$2x + 6 + 4$$
$$f\big(g(x)\big) = 2x + 10$$

$$g(2x + 4)$$
$$(2x + 4) + 3$$
$$2x + 4 + 3$$

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

b.

$$f(g(x)) = 2$$

$$g(2)$$

$$\frac{1}{2} * 2 - 5$$

$$1 - 5$$

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

c.

$$f(-x + 2)$$

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

$$(x^2 - 4x + 4) + (-x + 2)$$

$$x^2 - 4x + 4 - x + 2$$

$$f(g(x)) = x^2 - 5x + 6$$

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

Opgave 3

$$f(g(x)) = (x - 1)^2$$

$$f(x) = x^2 \qquad g(x) = x - 1$$

$$f(g(x)) = \sqrt{x - 2}$$

$$f(x) = \sqrt{x} \qquad g(x) = x - 2$$

$$f(g(x)) = (2x + 1)^2 - 2$$

$$f(x) = x^2 - 2 \qquad g(x) = 2x + 1$$

$$f(g(x)) = \sqrt{x^2 + 2x}$$

$$f(x) = \sqrt{x} \qquad g(x) = x^2 + 2x$$

Opgave 4

Har brugt alt min elevtid på det