

$$(f \circ g)(x) = f(g(x))$$

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$$f(x) = 2x + 1 \quad g(x) = 4x + 2 \quad h(x) = 4x^2 + 4x + 1$$

$$(h-g)(-4) = h(-4) - g(-4)$$

$$\left(4(-4)^2 + 4(-4) + 1\right) - \left(4(-4) + 2\right)$$

$64 - 16 + 1 + 14$        $\underbrace{-16 + 2}$

$$\textcircled{63}$$

$$f(x) = 2x + 1 \quad g(x) = 4x + 2 \quad h(x) = 4x^2 + 4x + 1$$

$$(h+fg)(3) = h(3) + f(3)g(3)$$

$$(4(3)^2 + 4(3) + 1) + [(6+1) \times (12+2)]$$

$$36 + 12 + 1 + 98$$

$$147$$

$$(f \circ g)(0)$$

$$R(x) = a(x) \cdot p(x)$$

$$\downarrow$$
$$x \left( 3 - \frac{1}{300}x \right)$$

$$3x - \frac{1}{300}x^2$$

$$C(x) = f(x) + v(x)$$

↓

$$200 + 2x$$

$$P(x) = R(x) - C(x)$$

$$\begin{array}{c} \downarrow \\ \left( 3x - \frac{x^2}{300} \right) - 200 - 2x \\ \downarrow \\ x - \frac{x^2}{300} - 200 \quad | \quad -\frac{x^2}{300} + x - 200 \end{array}$$

$$A(x) = \frac{C(x)}{n(x)}$$

$$\frac{200+2x}{x} = \frac{200}{x} + \frac{2x}{x}$$
$$\frac{200}{x} + 2$$



$$36) f(x) = \frac{x}{6} - 2 \quad g(x) = 6x + 12$$

$$(f \circ g)(x) = (g \circ f)(x) = x$$

$$f(g(x)) = \frac{6x+12}{6} - 2 = x+2-2$$

$$g(f(x)) = 6\left(\frac{x}{6} - 2\right) + 12 \quad \textcircled{X}$$

$$6x/6 - 12 + 12 \quad \textcircled{X}$$