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Função do 2° Grau

@ $-\dfrac{2}{9}$

$f(x) = x^2 + bx + c$ (0,0) $f(x) = x^2 + x$

$0^2 + b.0 + c$ (1,2) $f(-\frac{1}{3}) = \frac{9-2}{9} = \frac{-4-6}{9}$

$0 = 0^2 + b.0 + c$ $\frac{9\quad3\quad9}$

$0 = c$ $-\dfrac{2}{9}$

$2 = 1^2 + b.1 / 2 = 1 + b = b = 1$

ⓑ $\dfrac{2}{9}$

ⓒ $-\dfrac{1}{4}$

ⓓ 4

ⓔ 0

② ⓐ -2 $f(x) = mx^2 - 4x + 2m$ $m < 0$

$\Delta = 0$

$\Delta = b^2 - 4ac = 0$

$(-4)^2 - 4m \cdot 2m = 0$

ⓑ $-\sqrt{2}$ $16 - 8m^2 = 0$

$8m^2 = 16$

$m = \pm\sqrt{2}$

$m = -\sqrt{2}$

© -1

(d) $\sqrt{2}$

(e) 2

③ ⓐ $a > 0, b > 0$ e $c < 0$ | $f(x) = ax^2 + bx + c$

$f(0) = 0 \to 0$

ⓑ $a > 0, b \nless 0$ e $c < 0$ | $x_1 + x_2 = \dfrac{-a}{a}$

$a > 0, b < 0$ e $c > 0$ | $-b < 0$

$a < 0, b > 0$ e $c > 0$ | $(-1) \cdot b < 0$

> 0

$a < 0, b < 0$ e $c < 0$

④ ⓐ $A(x) = 2500x - \dfrac{1}{2}x^2$ | $x + 2a = 5000$

ⓑ $A(x) = 3x - 5.500$ $2a = 5000 - x$

ⓒ $A(x) = 2500x - x^2$ | $A(x) = \dfrac{x(5000 - x)}{2} = \dfrac{5000x - x}{2}$

ⓓ $A(x) = x^2 - 5000$

ⓔ $A(x) = 2x^2 - 2500$

Ⓠ

⑤ $f(x) = 2x^2 - 24x + 1$ $xv = -\dfrac{b}{2a}$

ⓐ 73

ⓑ 71

ⓒ -71

ⓓ -73 $\Delta = 6^2 - 4ac$ $y \cdot u = \dfrac{-\Delta}{4a} = \dfrac{-568}{4 \cdot 2}$

ⓔ -79 $\Delta = (-24)^2 - 4 \cdot 2 \cdot 1$

         $576 - 8 = 568$ $\dfrac{568}{8} = 71$

⑥ $C(x) = 3x^2 - 15x + 21$

ⓐ   20 $U(x) = 2x^2 + x$

ⓑ   16 $L(x) = U(x) - C(x)$

ⓒ   12 $L(x) = 2x^2 + x - 3x^2 + 15x - 21$

ⓓ   8 $L(x) = -x^2 + 16x - 21$

ⓔ   4 $xv = -\dfrac{b}{2a} = \dfrac{-16}{2(-1)} = \dfrac{16}{2} = 8$

⑦ $f(x) = \dfrac{b}{2} = (10 - x)x = \dfrac{10x - x^2}{2} = 5x - \dfrac{x^2}{2}$

ⓐ 2,5

ⓑ 50 $yv = \dfrac{\Delta}{4b} = \dfrac{8^5 - 4 \cdot \frac{25^2}{4(-x)}}{-2} = \boxed{12,5}$

ⓒ 7,5

ⓓ 10,0

ⓔ 12,5

⑧

ⓐ $y = x^2 - 6x + 9$ $b(\mp) = A$

             cot . 10

ⓑ $y = x^2 , 2x - 15$

ⓒ $y = -x^2 - 2x + 8$

ⓓ $y = 2x^2 - 4x + 1$

ⓔ $= 3x^2 + 6x - 4$