

EDA 3

1) Recta $P(1;4)$
a buscar2) $\perp A(x_1; y_1) B(x_2; y_2)$

$$(-m)^{-1} = -2$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$(x - y_1) = m(x - x_1)$$

$$y - 4 = -2(x - 1)$$

$$y - 4 = \frac{1}{2}(x + 4)$$

$$y = -2x + 2 + 4$$

$$m = \frac{3 - 4}{1 - 3} = \frac{-1}{-2} = \frac{1}{2}$$

$$y = \frac{1}{2}x - \frac{3}{2} + 4$$

$$y = -2x + 6$$

$$y = \frac{1}{2}x + \frac{5}{2}$$

B) $\parallel A(3;4) B(1;3)$

$$m = \frac{1}{2}$$

$$y - 4 = \frac{1}{2}(x - 1)$$

$$y = \frac{1}{2}x + \frac{7}{2}$$

2) $x_1 = -2; x_2 = 4; c = 8$

$$x_1 \cdot x_2 = \frac{c}{a} \Rightarrow -2 \cdot 4 = \frac{8}{a}$$

$$x_1 + x_2 = \frac{-b}{a} \Rightarrow -2 + 4 = \frac{-b}{-1}$$

$$-8 = \frac{8}{a}$$

$$-8a = 8$$

$$a = -1$$

$$2 = b$$

$$-x^2 + 2x + 8$$

$$3) \log 2 + \log (11-x^2) = 2 \log (5-x)$$

$$\lg [2(11-x^2)] = \lg (5-x)^2$$

$$22 - 2x^2 = 25 - 5x - 5x + x^2$$

$$0 = 3x^2 - 10x + 3$$

$$\frac{10 \pm \sqrt{100 - 4 \cdot 3 \cdot 3}}{2 \cdot 3} = \frac{10 \pm 8}{5} \begin{matrix} \nearrow 3 \\ \searrow \frac{1}{3} \end{matrix}$$

$$| x_1 = 3 \quad \wedge \quad x_2 = \frac{1}{3} |$$

[REDACTED]

[REDACTED]

