

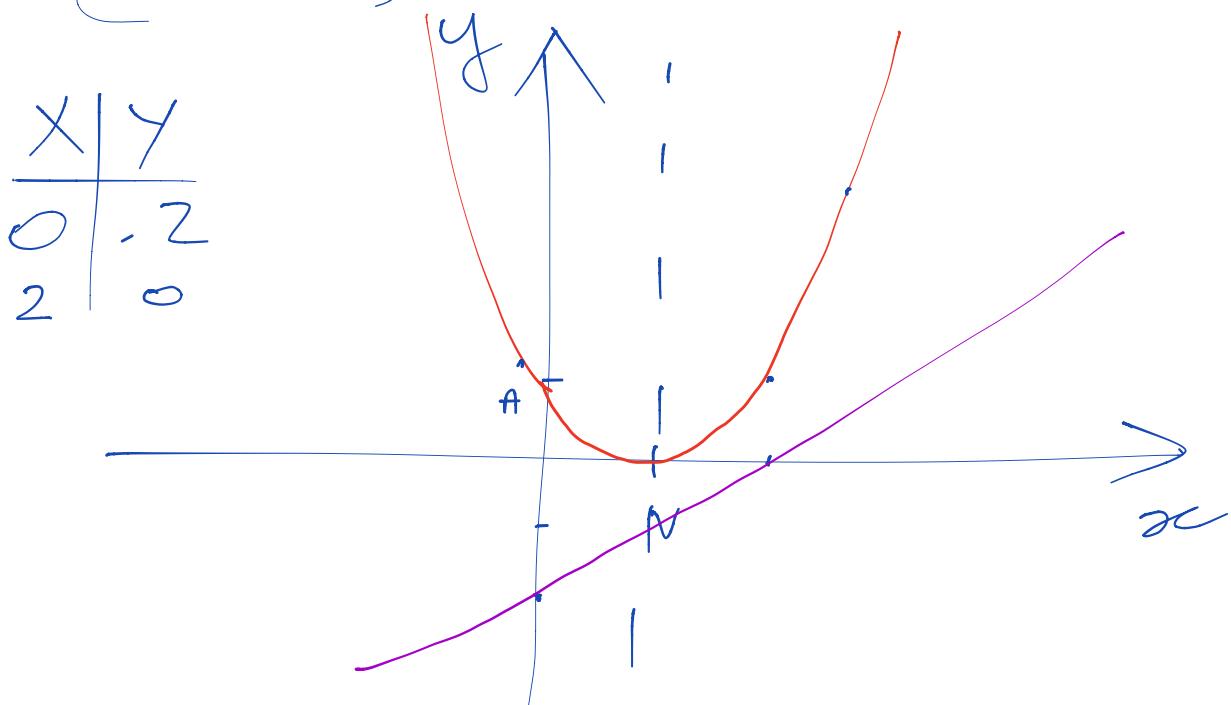
$$\begin{cases} y = x - 2 \\ y = x^2 - 2x + 1 \end{cases}$$

rette  
parabel

$V(1; 0)$      $A(0; 1)$

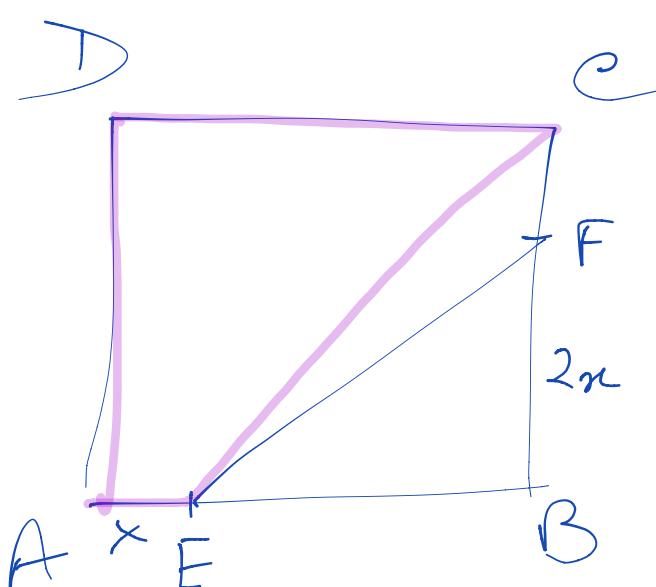
$$x^2 - 2x + 1 = 0$$

$$(x - 1)^2 = 0 \quad x = 1$$



$$x^2 - 2x + 1 = x - 2$$

$$x^2 - 3x + 3 = 0 \quad \Delta = 9 - 12 < 0$$



$$AB = l$$

$$BF \cong \angle AEF$$

$$A(AEC) = 3A(EBF)$$

$$\overline{AE} = x$$

$$\overline{BF} = 2x$$

$$0 \leq x \leq l$$

$$A(EBF) = \frac{1}{2} \overline{EB} \cdot \overline{BF} = \frac{1}{2} (l-x) \cdot 2x =$$

$$= x(l-x) = lx - x^2$$

$$A(AEC) = \frac{1}{2} (\overline{AE} + \overline{EC}) \cdot \overline{AD} =$$

$$= \frac{1}{2} (x + l)l = \frac{xl + l^2}{2}$$

$$\frac{lx + l^2}{2} = 3lx - 3x^2$$

$$\ell x + \ell^2 = 6\ell x - 6x^2$$

$$6x^2 - 5\ell x + \ell^2 = 0$$

$$\Delta = 25\ell^2 - 24\ell^2 = \ell^2$$

$$x_{1,2} = \frac{5\ell \pm \ell}{12} \quad \begin{matrix} \nearrow \ell/2 \\ \searrow \ell/3 \end{matrix}$$

$$x^6 - 64 = 0 \quad \text{in } \mathbb{C}$$

$$(x^3 - 8)(x^3 + 8) = 0$$

$$(x-2)(x^2+2x+4)(x+2)(x^2-2x+4) = 0$$

$$x-2=0 \implies x_1 = 2$$

$$x+2=0 \implies x_2 = -2$$

$$x^2+2x+4=0$$

$$\frac{\Delta}{4} = 1-4 = -3 \quad x_{3,4} = -1 \pm i\sqrt{3}$$

$$x^2-2x+4=0$$

$$\frac{\Delta}{4} = 1-4 = -3 \quad x_{5,6} = 1 \pm i\sqrt{3}$$

$$S = \left\{ -2, 2, -1+i\sqrt{3}, -1-i\sqrt{3}, 1+i\sqrt{3}, 1-i\sqrt{3} \right\}$$

$$x^6 - 64 = 0 \quad \text{in } \mathbb{R}$$

$$x^6 = 64 ; \quad x = \pm 2 \quad S = \{-2, 2\}$$

$$x^6 - 9x^3 + 8 = 0 \text{ in } \mathbb{C}$$

$$z = x^3 \quad z^2 - 9z + 8 = 0$$

$$(z-1)(z-8) = 0$$

$$z_1 = 1 \quad z_2 = 8$$

$$x^3 = 1 \rightarrow x^3 - 1 = 0 \rightarrow (x-1)(x^2 + x + 1) = 0$$

$$x^3 = 8 \rightarrow x^3 - 8 = 0 \rightarrow (x-2)(x^2 + 2x + 4) = 0$$

$$x^6 - 9x^3 + 8 = 0 \text{ in } \mathbb{C}$$

$$(x^3 - 1)(x^3 - 8) = 0$$

$$\underline{(x-1)}(x^2 + x + 1)(x-2)(x^2 + 2x + 4) = 0$$

$$\Delta = 1 - 4 = -3$$

$$x_{1,2} = \frac{-1 \pm \sqrt{3}i}{2}$$

$$\frac{\Delta}{4} = 1 - 4 = -3$$

$$x_{3,4} = -1 \pm \sqrt{3}i$$

$$x + \frac{1}{x} = k \quad x \neq 0$$

$$x^2 + 1 - kx = 0$$

$$x^2 - kx + 1 = 0$$