

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

SUBSTITUTION

$$2x = 2y + 1$$

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

$$\left(\frac{2y+1}{2}\right)^2 + y^2 = 1$$

$$\frac{4y^2 + 4y + 1}{4} + y^2 = 1$$

$$\Delta = 16 - 4 \cdot 8 \cdot (-3) = 16 + 96 = 112$$

$$8y^2 + 4y - 3 = 0 \quad = 16 + 96 = 112$$

$$-4 \pm \sqrt{112}$$

$$y = \frac{-4 \pm \sqrt{112}}{16}$$

$$y = \frac{-4 \pm 10,6}{16}$$

$$4y^2 + 4y + 1 + 4y^2 = 4$$

$$0,4$$

$$x = 0,9$$

$$-0,9$$

$$x = -0,4$$

$$S' = \left\{ \begin{matrix} (0,9; 0,4) \\ (-0,4; -0,9) \end{matrix} \right\}$$

$\begin{matrix} \uparrow & \uparrow \\ x & y \end{matrix}$

$$\begin{cases} x = 0,9 \\ y = 0,4 \end{cases}$$

or

$$\begin{cases} x = -0,4 \\ y = -0,9 \end{cases}$$

2.5.22 abch

$$x^4 - 1 = 0$$

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

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

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

$$\Delta = 0^2 - 4 \cdot 1 \cdot 1 = -4 < 0$$

Ps de sol

$$\begin{aligned}(2x^2 + 3x + 1)^2 - (2x^2 - 4x - 1)^2 &= A^2 - B^2 \\ &= (A+B)(A-B)\end{aligned}$$

$$(2x^2 + 3x + 1 + 2x^2 - 4x - 1)(2x^2 + 3x + 1 - (2x^2 - 4x - 1)) = 0$$

$$(4x^2 - x)(7x + 2) = 0$$

$$x(4x - 1)(7x + 2) = 0$$

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

⚠️ 0?

$$x \neq -1; -3$$

$$\frac{a}{b} + \frac{c}{d} = \frac{ad+bc}{bd}$$

$$\frac{A}{B} = \frac{C}{D} \Leftrightarrow AD=BC$$

$$\frac{x+3 + x+1}{(x+1)(x+3)} = -\frac{3}{4}$$

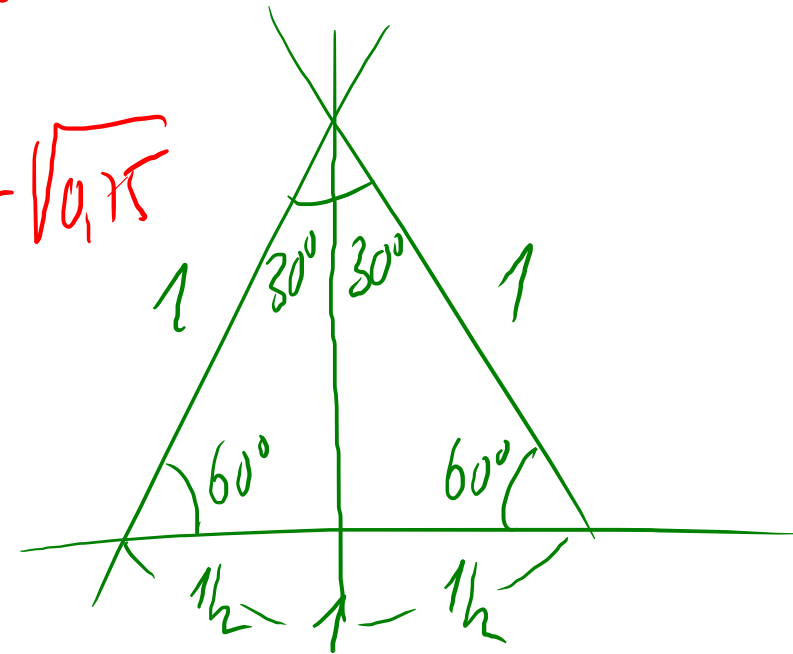
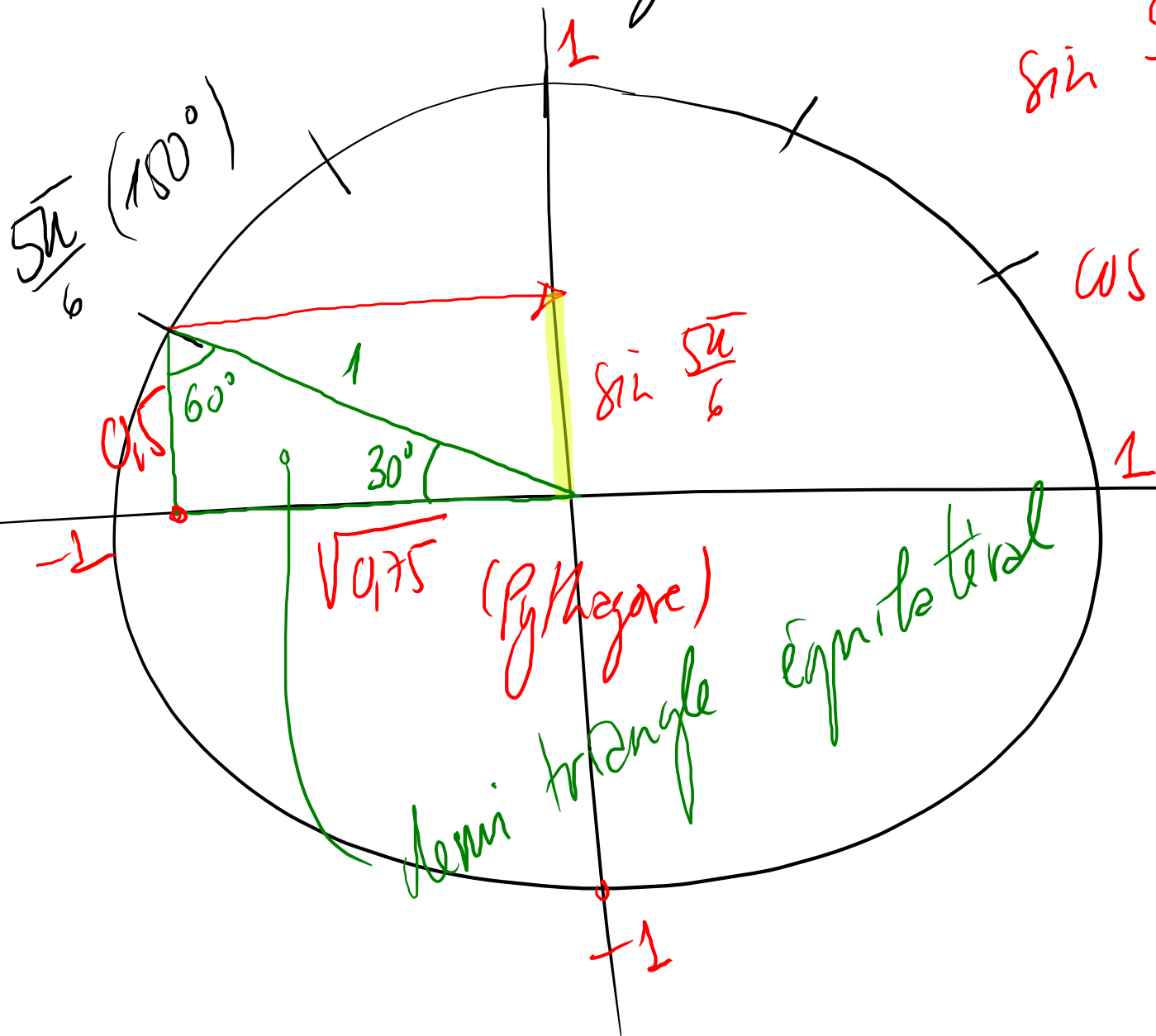
$$\frac{2x+4}{(x+1)(x+3)} = -\frac{3}{4}$$

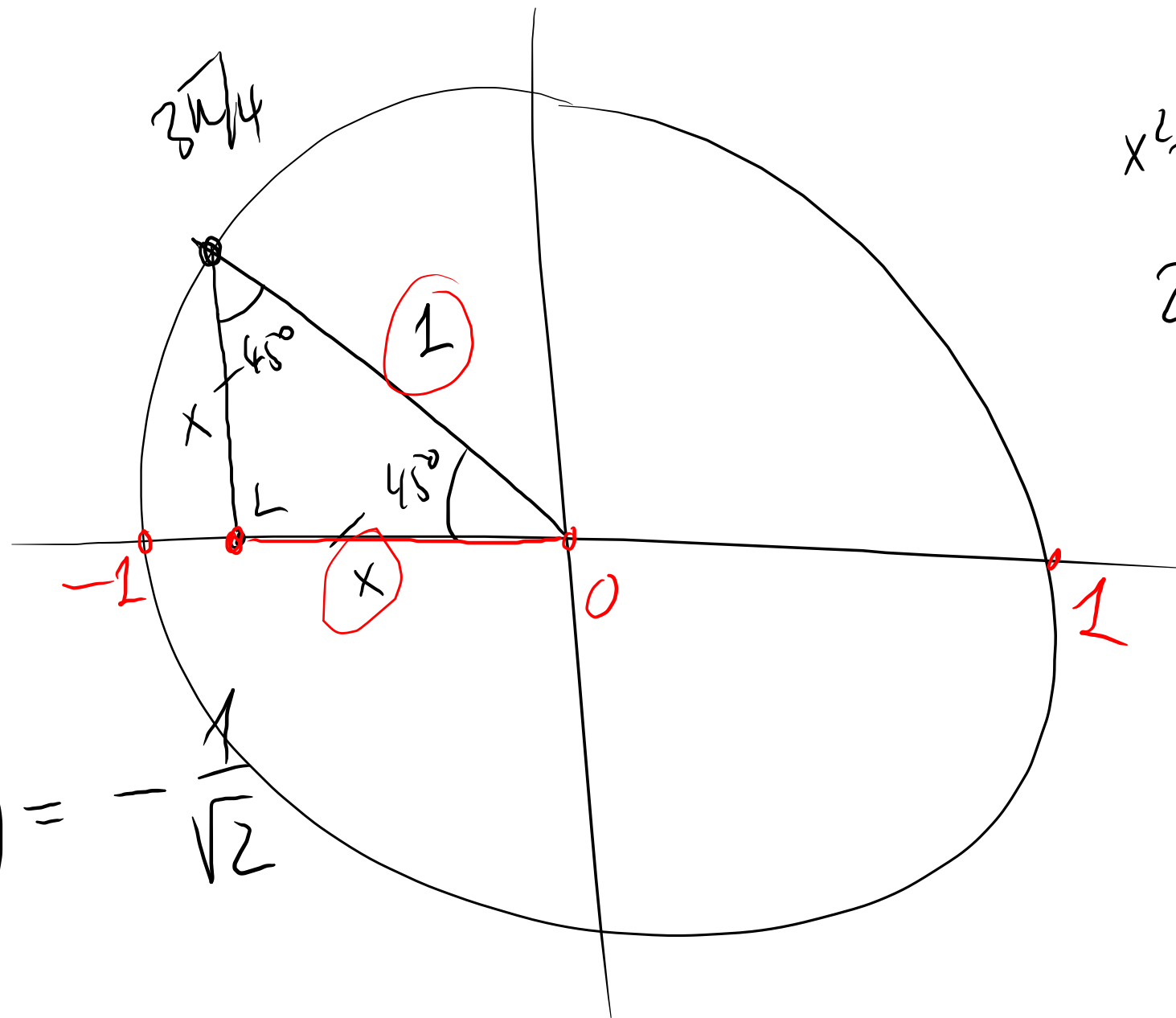
$$(2x+4) \cdot 4 = (x+1)(x+3) \cdot (-3)$$

Calculer la valeur exacte de $\sin\left(\frac{5\pi}{6}\right)$ et de $\cos\left(\frac{3\pi}{4}\right)$. Justifier la réponse à l'aide d'un dessin d'un triangle dans le cercle trigonométrique.

$$\sin \frac{5\pi}{6} = 0,5$$

$$\cos \frac{5\pi}{6} = -\sqrt{0,75}$$





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

$$2x^2 = 1$$

$$x^2 = \frac{1}{2}$$

$$x = \sqrt{\frac{1}{2}}$$

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

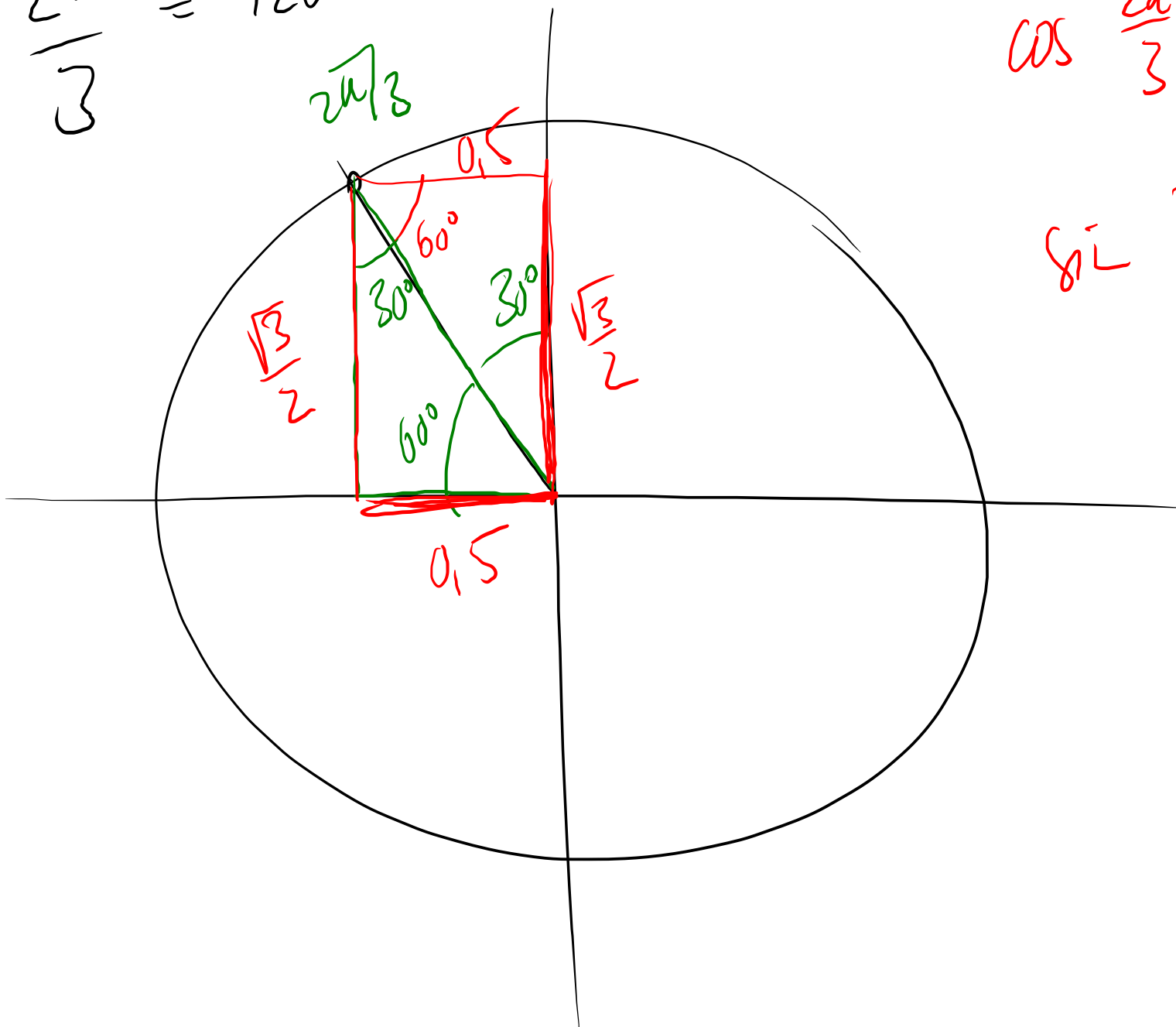
$$\cos\left(\frac{3\pi}{4}\right) = -\frac{1}{\sqrt{2}}$$

$$0,75 = \frac{3}{4}$$

$$\sqrt{0,75} = \sqrt{\frac{3}{4}} = \frac{\sqrt{3}}{\sqrt{4}} = \frac{\sqrt{3}}{2}$$

Valeur exacte de $\cos \frac{\pi}{6}$

$$\frac{2\pi}{3} = 120^\circ$$



$$\cos \frac{2\pi}{3} = -0,5 = -\frac{1}{2}$$

$$\sin \frac{2\pi}{3} = \frac{\sqrt{3}}{2}$$

$$2x^2 + bx + c = 0$$

$$2(x-x_1)(x-x_2) = 0$$



$$x_1 = \frac{-b + \sqrt{\Delta}}{2a}$$

$$x_2 = \frac{-b - \sqrt{\Delta}}{2a}$$

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