Résoudre dans $\mathbb{R}$

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

$x-2 \geq 0$

$x \geq 2$

① Isoler le $\sqrt{}$

② Élever au carré

$1-x \geq 0$

$1 \geq x$

$x \leq 1$

Vu que les conditions $x \leq 1$ et $x \geq 2$ sont contradictoires,

$S = \emptyset$

$-2 \neq 2$

$(\,)^2$ $(\,)^2$

$4 = 4$ ✓

$$\sqrt{1-x} = x-2 \quad \Big| (\,)^2$$

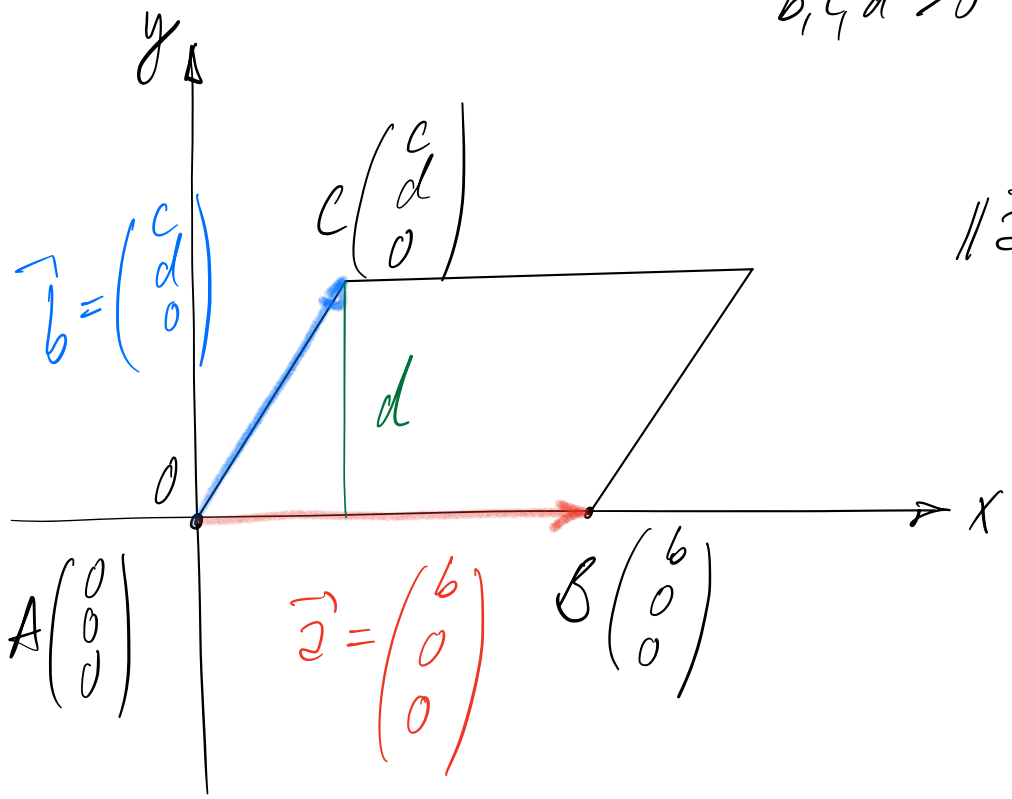
$$1-x = x^2-4x+4$$

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

$$x = \frac{3 \pm \sqrt{9-12}}{2} \notin \mathbb{R}$$

$S = \emptyset$

$b, c, d > 0$



$\|\vec{a} \times \vec{b}\| = bd$

$\Updownarrow$

base · hauteur

$$\vec{a} \times \vec{b} : \begin{vmatrix} i & b & c \\ j & 0 & d \\ k & 0 & 0 \end{vmatrix} \longrightarrow \begin{pmatrix} 0 \\ 0 \\ bd \end{pmatrix}$$

$$\sqrt{A} + \sqrt{B} = \sqrt{C}$$

$$()^2$$

$$A + 2\sqrt{A}\sqrt{B} + B = C$$

$$2\sqrt{A}\sqrt{B} = C - A - B$$

$$()^2$$

$$4AB = C^2 + A^2 + B^2 - 2AC - 2BC + 2AB$$

$$\sqrt{7-x} = x-5$$

$7-x \geqslant 0$

$7 \geqslant x$

$\boxed{x \leqslant 7}$

$x-5 \geqslant 0$

$\boxed{x \geqslant 5}$

$\Rightarrow \boxed{x \in [5;7]}$

$x \leq 7$ et $x \geqslant 5$

$$\sqrt{7-2x} - \sqrt{5+x} = \sqrt{4+3x} \quad \downarrow ()^2$$

$$7-2x - 2\sqrt{7-2x}\sqrt{5+x} + 5+x = 4+3x$$

$$8-4x = 2\sqrt{7-2x}\sqrt{5+x} \quad \downarrow ()^2$$

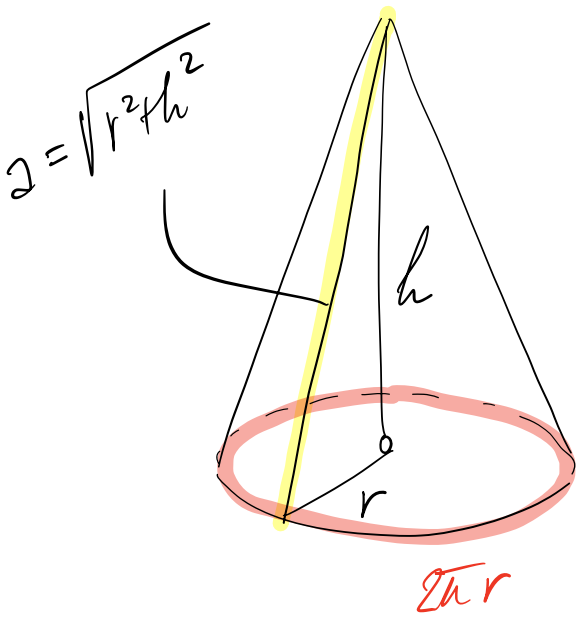
$$64 - 64x + 16x^2 = 4(7-2x)(5+x)$$

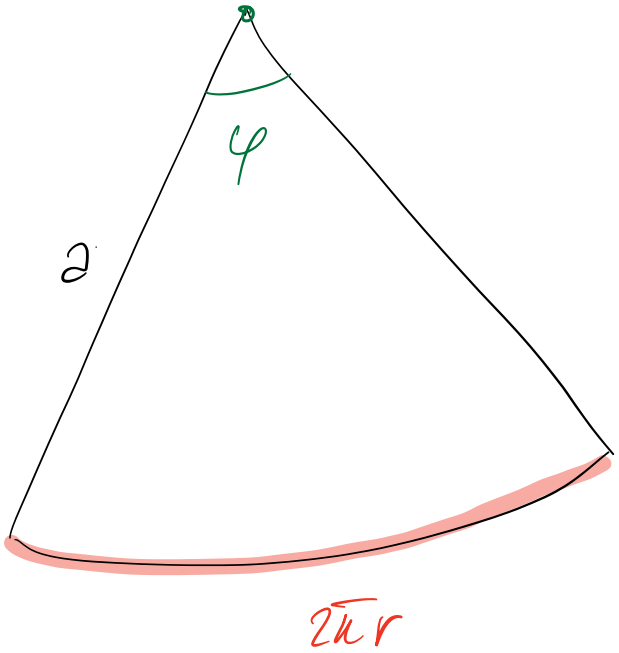
$$16 - \cancel{16x + 4x^2} = 35 + \cancel{7x - 10x - 2x^2}$$

$$6x^2 - 13x - 19 = 0$$

$$(A+B+C+\cdots)^2 = A^2+B^2+C^2+\cdots$$

$$+ 2AB + 2BC + 2AC + \cdots$$


$a = \sqrt{r^2 + h^2}$
h
r
$2\pi r$


φ
a
$2\pi r$