

PAG. 266 N 131

CONCENTRICA

↓
STESSO CENTRO

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

↓

$$C(1, -2)$$

$$A(1, -8)$$

$$R = \overline{AC} = \sqrt{(1-1)^2 + (-2+8)^2} = 6$$

$$(x-1)^2 + (y+2)^2 = 6^2$$

$$x^2 + 1 - 2x + y^2 + 4 + 4y - 36 = 0$$

$$x^2 + y^2 - 2x + 4y - 31 = 0$$

182

$$\begin{cases} x^2 + y^2 - 8x + 10y + 25 = 0 \\ y + 9 = 0 \rightarrow y = -9 \end{cases}$$

$$x^2 + 81 - 8x - 90 + 25 = 0$$

$$x^2 - 8x + 16 = 0$$

$$\Delta = 64 - 4 \cdot 16 = 0 \quad \text{retta tangente}$$

$$x = \frac{8 \pm 0}{2} = 4$$

$$P(4, -9)$$

$$y = 3x - 4$$

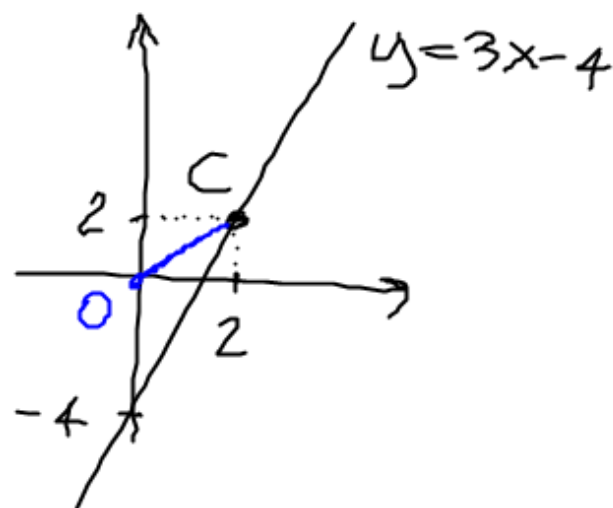
ordinata $y = 2$

$$2 = 3x - 4$$

$$3x = 6$$

$$x = 2$$

$$C(2, 2)$$



$$\overline{CO} = \text{raggio}$$

$$\overline{CO} = \sqrt{(2-0)^2 + (2-0)^2} = \sqrt{8}$$

$$(x-2)^2 + (y-2)^2 = 8$$

$$x^2 + 4 - 4x + y^2 + 4 - 4y - 8 = 0$$

$$\boxed{x^2 + y^2 - 4x - 4y = 0}$$

RETTA $y = 3x + 2$

PERPENDICOLARE ? $y = -\frac{1}{3}x + k$

PERPENDICOLARE PASSANTE

PER $A(-1, 7)$

$$7 = -\frac{1}{3}(-1) + k$$

$$y = -\frac{1}{3}x + \frac{20}{3}$$

$$\begin{aligned} k &= 7 + \frac{1}{3}(-1) = \\ &= 7 - \frac{1}{3} = \frac{20}{3} \end{aligned}$$