

LDDR Niveau 1: TE 8 GEOMETRIE PLANE

T1-

1. $P(3, -8) \quad 3x + 4y - 6 = 0$

$$\text{dist}(P, d) = \frac{|9 - 32 - 6|}{\sqrt{9 + 16}} = \frac{29}{5}$$

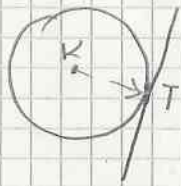
2. $x^2 + y^2 - 7x + 10y + 7.25 = 0 \Rightarrow (x - \frac{7}{2})^2 - \frac{49}{4} + (y + 5)^2 - 25 + 7.25 = 0$
 $\Leftrightarrow (x - \frac{7}{2})^2 + (y + 5)^2 = 5 \quad K(\frac{7}{2}; -5) \quad r = \sqrt{5}$

3. $P(3, -2) \quad (x + 5)^2 + (y - 1)^2 = 81 \quad K(-5, 1) \quad r = 9$

$$(3 + 5)^2 + (-2 - 1)^2 = 64 + 9 = 73 < 81 \Rightarrow \text{int\'erieur.}$$

4. $(x - 2)^2 + y^2 = 5 \quad T(4; 1)$

$$K(2; 0) \quad r = \sqrt{5}$$



$$\vec{n}_t = \vec{KT} = \begin{pmatrix} 2 \\ 1 \end{pmatrix} \quad 2x + y + c = 0$$

$$T: 8 + 1 + c = 0 \Rightarrow c = -9$$

$$t: 2x + y - 9 = 0$$