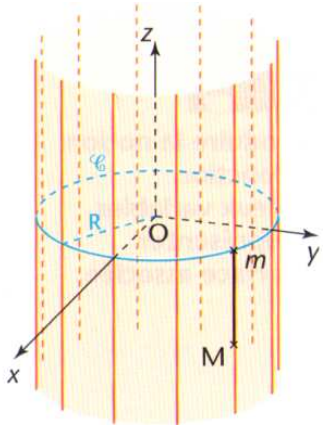
Sections planes de surfaces

Chapitre 3

I. Cylindre

1. Équation (axe (Oz))

$$\boxed{x^2 + y^2 = R^2}$$



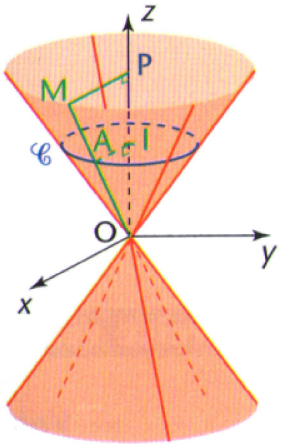
2. Section

Plan	Condition	Section
z = k		Cercle (Ω(0, 0, k), R)
x = k **y = k**	|k| < R	2 droites
	|k| = R	1 droite
	|k| > R	Ø

II. Cône

1. Équation (axe (Oz))

$$\boxed{x^2 + y^2 = \lambda^2 z^2} \quad \lambda = \tan\varphi$$



2. Section

Plan	Condition	Section
z = k	k = 0	Point O(0, 0, 0)
	k ≠ 0	Cercle $x^2 + y^2 = (\lambda k)^2$
x = k **y = k**	k = 0	Deux droites sécantes en O
	k ≠ 0	2 hyperboles $z = \pm\sqrt{\frac{x^2 + k^2}{\lambda^2}}$