



## AFFINE SETS AND LINEAR EQUATIONS

PROPOSITION 1.  $M \subset \mathbf{R}^n$  is affine if and only if there exists  $b \in \mathbf{R}^m$  and  $B \in \mathbf{R}^{m \times n}$  such that

$$M = \{x \in \mathbf{R}^n \mid Bx = b\}.$$

