



## Why

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## Main Result

**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*

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

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<sup>1</sup>Future editions will include.



