



$\mathbb{Z}^2$  is a free  $\mathbb{Z}$ -module of rank 2. Let  $\mathcal{L}$  be a lattice in  $\mathbb{Z}^2$ . Then  $\mathbb{Z}^2 / \mathcal{L}$  is a finite abelian group. The order of  $\mathbb{Z}^2 / \mathcal{L}$  is equal to the area of the fundamental parallelogram of  $\mathcal{L}$ .

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