

Proposition 1.16: If m and n are even integers, then so is $m + n$.

Proof. Your proof goes here. For this one, please try to use the technique that I'll introduce on Monday of reminding the reader of the definition of divisibility early in the proof. "To show that $m + n$ is even we must show that ...". \square

Proposition 1.17(ii) (Our version): If m is an integer and m is divisible by 0, then $m = 0$.

Proof. Your proof goes here. \square

Proposition 1.18: Let $x \in \mathbb{Z}$. If x has the property that for all $m \in \mathbb{Z}$, $mx = m$, then $x = 1$.

Proof. Your proof goes here. \square

Proposition 1.19: Let $x \in \mathbb{Z}$. If x has the property that for some nonzero $m \in \mathbb{Z}$, $mx = m$, then $x = 1$.

Proof. Your proof goes here. \square

Proposition 1.24: Let $x \in \mathbb{Z}$. If $x \cdot x = x$ then $x = 0$ or $x = 1$.

Proof. Your proof goes here. \square

Proposition 1.25(i): For all $m, n \in \mathbb{Z}$

$$-(m + n) = (-m) + (-n).$$

Proof. Your proof goes here. \square

Proposition 1.25(ii): For all $m \in \mathbb{Z}$

$$-m = (-1) \cdot m.$$

Proof. Your proof goes here. \square