
Name: _____

QUIZ 1 ♠

MATH 211
January 19, 2023

1. Write this set by listing its elements between braces: $\{x^2 + 1 : x \in \mathbb{Z}, -1 \leq x \leq 2\}$
2. Express the set $X = \{\dots, -10, -5, 0, 5, 10, 15, 20, \dots\}$ in set-builder notation.
3. If $A = \{x \in \mathbb{Z} : x^2 < 10\}$, then $|A| =$
4. Find the cardinality of the set $B = \{1, 3, \{3, 5, 7\}, \{6\}, \emptyset, 8, \{8\}\}$.

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1. Write this set by listing its elements between braces: $\{x \in \mathbb{Z} : |2x| < 5\}$
2. Express the set $X = \{\dots, \frac{1}{8}, \frac{1}{4}, \frac{1}{2}, 1, 2, 4, 8, \dots\}$ in set-builder notation.
3. If $A = \{x \in \mathbb{Z} : 1 \leq x^2 \leq 4\}$, then $|A| =$
4. Find the cardinality of the set $B = \{\{1, 4\}, a, b, \{3, 4\}, \{\emptyset\}\}$.

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1. Write this set by listing its elements between braces: $\{1 + 5x : x \in \mathbb{Z}, -1 \leq x \leq 2\}$
2. Express the set $X = \{\dots, -9, -4, 1, 6, 11, 16, 21 \dots\}$ in set-builder notation.
3. If $A = \{x \in \mathbb{Z} : |x| \leq 4\}$, then $|A| =$
4. Find the cardinality of the set $B = \{\{1\}, \{2, \{3, 4\}\}, \emptyset\}$.

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QUIZ 1 ♥

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1. Write this set by listing its elements between braces: $\{x \in \mathbb{R} : x^2 - 2x = 8\}$
2. Express the set $X = \left\{\dots, -\frac{\pi}{2}, 0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}, 2\pi, \frac{5\pi}{2}, \dots\right\}$ in set-builder notation.
3. If $A = \{x \in \mathbb{Z} : x^2 < 1\}$, then $|A| =$
4. Find the cardinality of the set $B = \{\{\{1\}, \{2, \{3, 4\}\}\}, \emptyset\}$.