Module 5B: Set operations

MTH 225
7 Oct 2020

Agenda

- Review of Daily Prep activity + Q/A time
- Activity:
- Wrap up with ungraded quiz + feedback time

Let A be the set of all integers that are multiples of 3, and B the set of all integers that are multiples of 4. Then $A \cap B$ is

The empty set

The set of all integers

The set of all multiples of 12

The set of all integers except for -2, -1, 0, 1, 2

None of the above

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The set of all integers except for -2, -1, 0, 1, 2

None of the above

Let $S = \{u, v\}$ and $T = \{x, y, z\}$. Then which of the following are elements of $S \times T$? Select all that apply.

u

(u, v)

(u, x)

(y, v)

$\{v, z\}$

$\{(v, z)\}$

Let $A = \{a \in \mathbb{N} : a \leq 20 \text{ and } a \% 5 = 1\}$. Then $|A|$ (the cardinality of A) is

0

1

4

5

19

20

Infinite

Q & A

Set theory card sort activity

Go to student.desmos.com and enter code G9V XYC
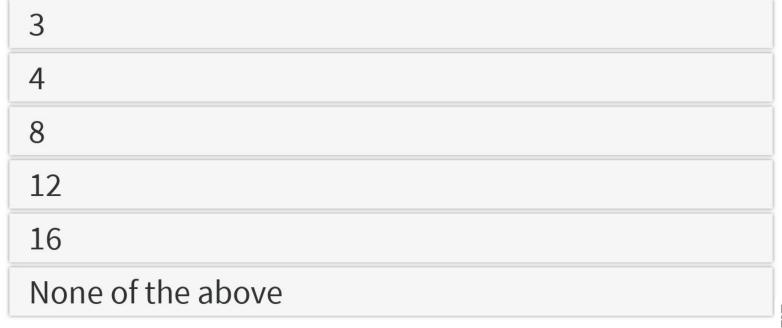
Jamboard activity: Cartesian products and power sets

Let A and B be sets such that $|A| = 4$ and $|B| = 3$. The cardinality of $A \times B$ is

- 3
- 4
- 8
- 12
- 16
- None of the above

Let A be a set such that $|A| = 4$. The cardinality of $P(A)$ is

3

4

8

12

16

None of the above

Which of the following are true statements for any two sets A and B? Select all that apply.

$$A \cup B = B \cup A$$

$$A \cap B = B \cap A$$

$$A \times B = B \times A$$

$$|A \cup B| = |A| + |B|$$

Have a great day 😃

Check your info sources to stay up to speed!