Class: Indexed Sets and Partition

- Due Feb 17 at 11:59pm
- Points 6
- Questions 6
- Time Limit None
- Allowed Attempts Unlimited

Instructions

This CLASS assignment is an introduction to Indexed Sets and partition of sets.

You have multiple attempts in answering the question.

Distribute Property of Indexed Sets (https://www.youtube.com/watch?v=VaZakaUj0v4&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=158)

Indexed Sets-1.pdf (https://deanza.instructure.com/courses/33250/files/10862360?wrap=1) (https://deanza.instructure.com/courses/33250/files/10862360/download?download_frd=1)

Unions and Intersections of an Indexed Collection of Sets

Given sets $A_0, A_1, A_2, \ldots$ that are subsets of a universal set U and given a nonnegative integer n,

$$\bigcup_{i=0}^{n} A_i = \{x \in U \mid x \in A_i \text{ for at least one } i = 0, 1, 2, \ldots, n\}$$

$$\bigcup_{i=0}^{\infty} A_i = \{x \in U \mid x \in A_i \text{ for at least one nonnegative integer } i\}$$

$$\bigcap_{i=0}^{n} A_i = \{x \in U \mid x \in A_i \text{ for all } i = 0, 1, 2, \ldots, n\}$$

$$\bigcap_{i=0}^{\infty} A_i = \{x \in U \mid x \in A_i \text{ for all nonnegative integers } i\}.$$

Take the Quiz Again

Attempt History

	Attempt	Time	Score
KEPT	Attempt 3	less than 1 minute	6 out of 6
LATEST	Attempt 3	less than 1 minute	6 out of 6
	Attempt 2	1 minute	5 out of 6
	Attempt 1	8 minutes	4 out of 6

ⓘ Correct answers are hidden.

Score for this attempt: 6 out of 6
Submitted Feb 17 at 7:09pm
This attempt took less than 1 minute.

Question 1
1 / 1 pts

Indexed Collection of Sets (https://www.youtube.com/watch?v=GUnBe9AyiYQ&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=145)

What is the union of the indexed sets?

- [-1,1]
- (-1,1)
- {0}

Question 2
1 / 1 pts

Indexed Collection of Sets (https://www.youtube.com/watch?v=GUnBe9AyiYQ&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=145)

What is the intersection of the indexed sets?

- [-1,1]
- (-1,1)
- {0}

Question 3
1 / 1 pts

Disjoint and Mutually Disjoint Sets (https://www.youtube.com/watch?v=PwWUc7oiJVA&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=146)

Rational and irrationals are disjoint.

- True
- False

Question 4
1 / 1 pts

Disjoint and Mutually Disjoint Sets (https://www.youtube.com/watch?v=PwWUc7oiJVA&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=146)

Rational and Reals are disjoint.

- True
- False

Question 5
1 / 1 pts

Partition of a Set (https://www.youtube.com/watch?v=xpl_7wHF5bI&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=147)

What are the properties of partition of a se?

- [x] Not empty
- [x] Mutually disjoint
- [x] Union is equal to the set

Question 6

1 / 1 pts

Partition of a Set (https://www.youtube.com/watch?v=xpl_7wHF5bI&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=147)

Which one is the partition of Z?

- [x] Even and Odd numbers
- [ ] Positive and Negatives

Quiz Score: 6 out of 6