CLASS: Set

Due Jan 12 at 11:59pm **Points** 29 **Questions** 14 **Time Limit** None
Allowed Attempts Unlimited

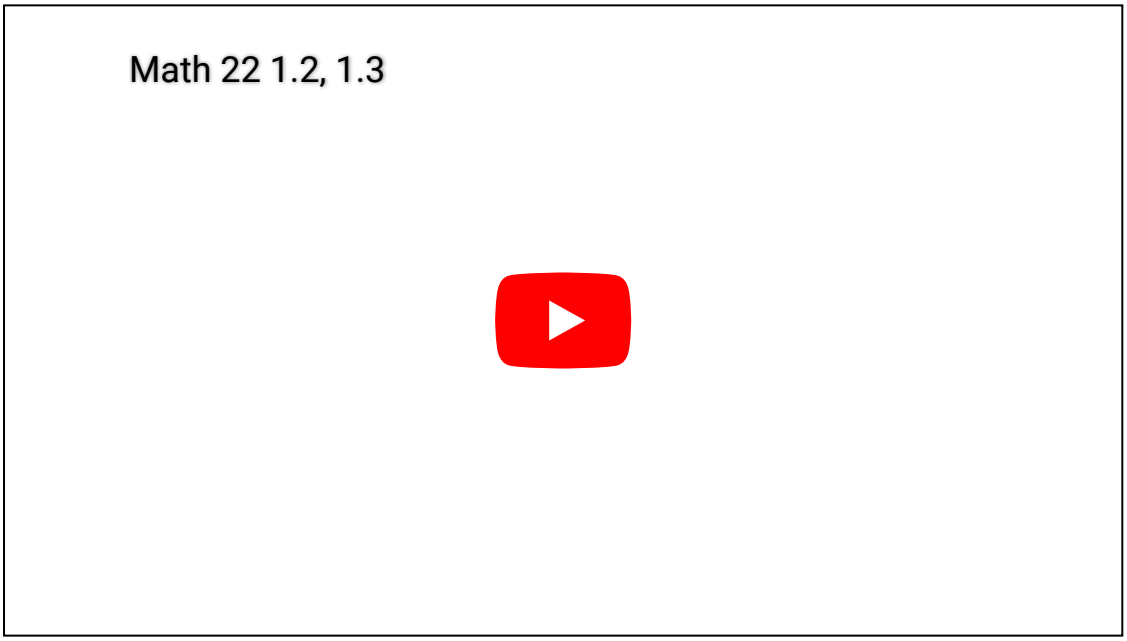
Instructions

Have your Discrete Math notebook prepared to write the definition and the examples.

This CLASS assignment is an introduction to The Set-Roster and Set-Builder Notations; Subsets; Cartesian Products.

You have multiple attempts in answering the questions.

My old lecture:



Take the Quiz Again

Attempt History

	Attempt	Time	Score
KEPT	Attempt 3	2 minutes	29 out of 29
LATEST	Attempt 3	2 minutes	29 out of 29
	Attempt 2	3 minutes	26 out of 29

Attempt	Time	Score
Attempt 1	20 minutes	26 out of 29

Correct answers are hidden.

Score for this attempt: **29** out of 29
Submitted Jan 12 at 10:17pm
This attempt took 2 minutes.

Question 1

1 / 1 pts

Watch me and take note: What is a set (https://www.youtube.com/watch?v=3PVucNE_QUk&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=73)

Disceret Math set part 1.pdf (https://deanza.instructure.com/courses/33250/files/10678831?wrap=1) (https://deanza.instructure.com/courses/33250/files/10678831/download?download_frd=1)

Is S=(1,2,3) a set? (yes or no)

no

Question 2

3 / 3 pts

Watch me and take note: What is a set (https://www.youtube.com/watch?v=3PVucNE_QUk&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=73)

List all members of set S

- [x] a
- [ ] {a}
- [x] b
- [ ] {a,b,c}
- [x] c
- [ ] empty set

Question 3

1 / 1 pts

Repetition of members in a set is allowed.

- ( ) True
- (•) False

Question 4

4 / 4 pts

Which sets are equal?

A={1,2,3}

B={1,1,1,2,3}

C={1,2,2,3,3,3}

D={2,3,1}

- [x] A
- [x] B

- [x] C
- [x] D
- [ ] They are distintc sets

Question 5

1 / 1 pts

Watch me and take note: What is a set (https://www.youtube.com/watch?v=3PVucNE_QUk&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=73)

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Now answer to the following question:

$$C = \{\{1\}, \{1, 2\}, \{\pi, e, 17\}\}$$

Select all members of C

- [ ] 1
- [ ] 2
- [ ] pi
- [ ] e
- [ ] 17
- [x] {1}
- [x] {1,2}

{pi,e,17}

Question 6

1 / 1 pts

Watch me and take note: Sets (https://www.youtube.com/watch?v=0MlBgxleTll&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=74)

Disceret Math set part 1.pdf (https://deanza.instructure.com/courses/33250/files/10678831?wrap=1) (https://deanza.instructure.com/courses/33250/files/10678831/download?download_frd=1)

Now answer to the following question:

What is the cardinality of set S? 3

What is the cardinality of the following set? 3

$$C = \{\{1\}, \{1, 2\}, \{\pi, e, 17\}\}$$

Answer 1:

3

Answer 2:

3

Question 7

4 / 4 pts

Watch me and take note: Subsets
(https://www.youtube.com/watch?v=JiCeGc-aQNY&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=76)

Subsets, Empty Set, Power Set.pdf
(https://deanza.instructure.com/courses/33250/files/10679343?wrap=1)
(https://deanza.instructure.com/courses/33250/files/10679343/download?download_frd=1)

Suppose a set has 1 member. How many subsets it has? (formula is in the lecture) 2

Suppose a set has 2 members. How many subsets it has? (formula is in the lecture) 4

Suppose a set has 3 members. How many subsets it has? (formula is in the lecture) 8

Suppose a set has 4 members. How many subsets it has? (formula is in the lecture) 16

Answer 1:

2

Answer 2:

4

Answer 3:

8

Answer 4:

16

Question 8

1 / 1 pts

Watch me and take note: Subsets
(https://www.youtube.com/watch?v=JiCeGc-aQNY&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=76)

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(https://deanza.instructure.com/courses/33250/files/10679343/download?download_frd=1)

Suppose S is a set. What does P(S) represent?

- propability of S
- Cardinality of S
- Subset of S
- Power Set of S

Question 9

1 / 1 pts

Watch me and take note: Subsets
(https://www.youtube.com/watch?v=JiCeGc-aQNY&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=76)

Subsets, Empty Set, Power Set.pdf
(https://deanza.instructure.com/courses/33250/files/10679343?wrap=1)
(https://deanza.instructure.com/courses/33250/files/10679343/download?download_frd=1)

Now answer to the following question:

$$C = \{\{1\}, \{1, 2\}, \{\pi, e, 17\}\}$$

Select the subsets of C.

- [ ] {1}
- [ ] {1,2}
- [ ] {pi,e,17}
- [x] {{1}}
- [x] {{1,2}}
- [x] {{pi,e,17}}

Question 10

1 / 1 pts

Watch me and take note: Subsets (https://www.youtube.com/watch?v=JiCeGc-aQNY&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=76)

Suppose S is a set. Empty set and S are both subsets of S.

- (•) True
- ( ) False

Question 11

1 / 1 pts

Being a Subset vs Proper Subset (https://www.youtube.com/watch?v=WGpt639U66M)

Based on what we explained in the lecture, our class is a proper subset of college.

- (●) True
- ( ) False

Question 12

3 / 3 pts

Membership vs subset (https://www.youtube.com/watch?v=iO-7-NfJOU8)

Select all that applies:

Which of the following are true statements?

a. $2 \in \{1, 2, 3\}$ b. $\{2\} \in \{1, 2, 3\}$ c. $2 \subseteq \{1, 2, 3\}$
d. $\{2\} \subseteq \{1, 2, 3\}$ e. $\{2\} \subseteq \{\{1\}, \{2\}\}$ f. $\{2\} \in \{\{1\}, \{2\}\}$

- [x] a
- [ ] b
- [ ] c
- [x] d
- [ ] e
- [x] f

Question 13

4 / 4 pts

Cartesian Product Using M&M Candies
(https://www.youtube.com/watch?v=7uw4An8zE6s)

Disceret Math Catesian Product.pdf
(https://deanza.instructure.com/courses/33250/files/10679627?wrap=1)
(https://deanza.instructure.com/courses/33250/files/10679627/download?download_frd=1)

In the lecture I created a new set using two other sets.

What is the cardinality of set A? 2

What is the cardinality of set B? 3

What is the cardinality of AXB? 6

What about the cardinality of BXA? 6

Answer 1:

2

Answer 2:

3

Answer 3:

6

Answer 4:

6

Question 14

3 / 3 pts

Common mistake:

Ordered Pair vs Set of Size 2 (https://www.youtube.com/watch?v=S5-jYDx6mXM&list=PLiwEbczHeZcuf7VyebtyKcVDqfViUkqfh&index=78)

In the lecture I discussed the difference between two mathematical objects.

We can describe an ordered pair in xy-plane true (true or false)

We can describe an tuple in xyz-plane true (true or false)

The above are sets. false (true or false)

Answer 1:

true

Answer 2:

true

Answer 3:

false

Quiz Score: **29** out of 29