

<input type="radio"/> 9	67%
<input checked="" type="radio"/> 10	30%
<input type="radio"/> 11	2%
<input type="radio"/> 2	1%

Submit

Results gathered from 550 respondents.

## FEEDBACK

A has size 9 as the elements are 1 to 9.

## 1 Perfect squares

1.0/1.0 point (graded)

A square of an integer, for example, 0, 1, 4 and 9, is called a *perfect square*. How many perfect squares are  $\leq 100$ ?

11

✓ Answer: 11

11

### Explanation

The perfect squares  $\leq 100$  are  $0^2, 1^2, 2^2, \dots, 10^2$ . Hence there are 11.

Submit

You have used 2 of 4 attempts

**i** Answers are displayed within the problem

## 2

0 points possible (ungraded)

Which of the following sets are finite?

☒ Weeks in a year ✓

☒ Students at UCSD ✓

☐ Odd primes

☒ Positive integer divisors of 30 ✓


### Explanation

- True.
- True. Despite appearances, luckily, UCSD has only a finite number of students.
- False.
- True. It is  $\{1, 2, 3, 5, 6, 10, 15, 30\}$

You have used 2 of 4 attempts

**i** Answers are displayed within the problem

3

0.0/3.0 points (graded)

Which of the following sets are finite?

☒  $\{x \in \mathbb{Z} \mid x^2 \leq 10\}$  ✓

☒  $\{x \in \mathbb{Z} \mid x^3 \leq 10\}$ 
☐  $\{x \in \mathbb{N} \mid x^3 \leq 10\}$  ✓

☒  $\{x \in \mathbb{R} \mid x^2 \leq 10\}$ 
☐  $\{x \in \mathbb{R} \mid x^3 = 10\}$  ✓


### Explanation

- True. It is  $\{-3, -2, \dots, 3\}$ .
- False. It is  $\{x \in \mathbb{Z} \mid x \leq 2\}$ .
- True. It is  $\{0, 1, 2\}$ .

- False. It is  $\{x \in \mathbb{R} \mid -\sqrt{10} \leq x \leq \sqrt{10}\}$ .
- True. It is  $\{10^{\frac{1}{3}}\}$ .

Submit

You have used 4 of 4 attempts

**i** Answers are displayed within the problem

## Discussion









Hide Discussion

Topic: Topic 3 / Set Size

Add a Post

Show all posts ▼

by recent activity ▼

 <u>Problem 3</u> <u>Questions and comments regarding problem 3.</u>  Staff	14 ▼
 <u>Problem 1</u> <u>Questions and comments regarding problem 1.</u>  Staff	3 ▼
 <u>General Comments</u> <u>Questions and comments regarding this section.</u>  Staff	1 ▼
 <u>Problem 2</u> <u>Questions and comments regarding problem 2.</u>  Staff	1 ▼

© All Rights Reserved