

The International Space Station orbits Earth at an average speed of 4.76 miles per second. What is the space station's average speed in miles per hour?

- A. 285.6
- B. 571.2
- C. 856.8
- D. 17,136.0

The population density of Iceland, in people per square kilometer of land area, increased from 2.5 in 1990 to 3.3 in 2014. During this time period, the land area of Iceland was 100,250 square kilometers. By how many people did Iceland's population increase from 1990 to 2014?

- A. 330,825
- B. 132,330
- C. 125,312
- D. 80,200

Ages of 20 Students Enrolled in a College Class

Age	Frequency
18	6
19	5
20	4
21	2
22	1
23	1
30	1

The table above shows the distribution of ages of the 20 students enrolled in a college class. Which of the following gives the correct order of the mean, median, and mode of the ages?

- A. mode < median < mean
- B. mode < mean < median
- C. median < mode < mean
- D. mean < mode < median

ID: e1ad3d41

Coat color	Eye color		
	Deep blue	Light brown	Total
Cream-tortoiseshell	16	16	32
Chocolate	12	4	16
Total	28	20	48

The data on the coat color and eye color for 48 Himalayan kittens available for adoption were collected and summarized in the table above. What fraction of the chocolate-colored kittens has deep blue eyes?

A.  $\frac{12}{48}$

B.  $\frac{12}{28}$

C.  $\frac{16}{32}$

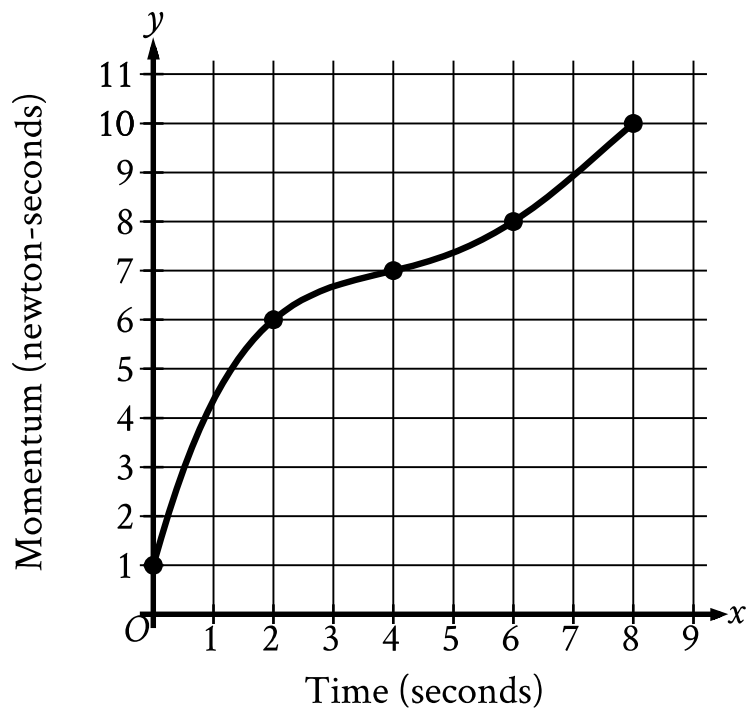
D.  $\frac{12}{16}$

If  $\frac{x}{y} = 4$  and  $\frac{24x}{ny} = 4$ , what is the value of  $n$ ?

**ID: 53d97af5**

A study was done on the weights of different types of fish in a pond. A random sample of fish were caught and marked in order to ensure that none were weighed more than once. The sample contained 150 largemouth bass, of which 30% weighed more than 2 pounds. Which of the following conclusions is best supported by the sample data?

- A. The majority of all fish in the pond weigh less than 2 pounds.
- B. The average weight of all fish in the pond is approximately 2 pounds.
- C. Approximately 30% of all fish in the pond weigh more than 2 pounds.
- D. Approximately 30% of all largemouth bass in the pond weigh more than 2 pounds.



The graph shows the momentum  $y$ , in newton-seconds, of an object  $x$  seconds after the object started moving, for  $0 \leq x \leq 8$ . What is the average rate of change, in newton-seconds per second, in the momentum of the object from  $x = 2$  to  $x = 6$ ?

15, 14, 18, 17,  $x$

The mean and the median of the five numbers above are equal. Which of the following is NOT a possible value of  $x$ ?

- A. 6
- B. 11
- C. 16
- D. 21



**ID: f8f79e11**

A park ranger asked a random sample of visitors how far they hiked during their visit. Based on the responses, the estimated mean was found to be 4.5 miles, with an associated margin of error of 0.5 miles. Which of the following is the best conclusion from these data?

- A. It is likely that all visitors hiked between 4 and 5 miles.
- B. It is likely that most visitors hiked exactly 4.5 miles.
- C. It is not possible that any visitor hiked less than 3 miles.
- D. It is plausible that the mean distance hiked for all visitors is between 4 and 5 miles.