

eMPower™ **ME**

STUDENT TEST BOOKLET

**Mathematics**

Grade 8





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# Practice Test

## Directions

Read each question and choose the best answer.

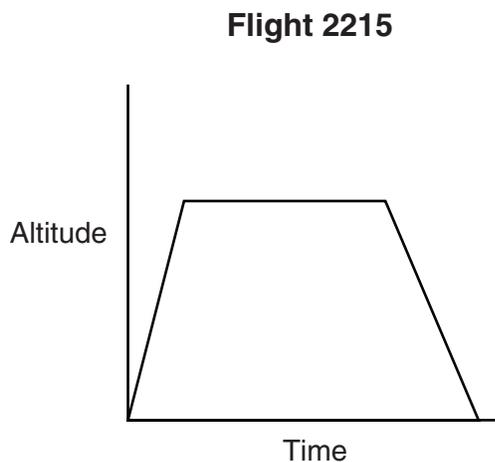
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104634A Multiple Choice B Common

1. A student collected 50 ants. The average mass of one ant was  $7.2 \times 10^{-2}$  grams. What was the total mass of the 50 ants?
- A 0.36 g
  - B 3.6 g
  - C 36 g
  - D 360 g

125575A Multiple Choice D Common

2. Jeni is studying the graph shown below, which models the flight of the plane for Flight 2215.

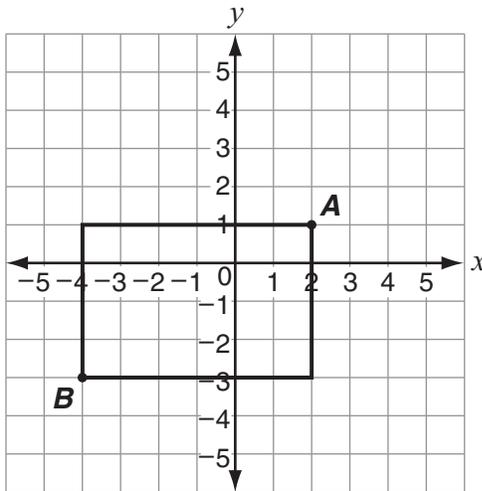


Which statement most accurately describes what is shown in the graph?

- A The speed of the plane is constant throughout the entire flight.
- B The altitude of the plane is constant throughout the entire flight.
- C The speed of the plane increases during takeoff, is constant for much of the flight, and decreases during landing.
- D The altitude of the plane increases during takeoff, is constant for much of the flight, and decreases during landing.

126745A Multiple Choice C Common

3. The map of a park is overlaid by a coordinate grid as shown below.



There is a walking path along the outside of the park that is represented by a rectangle. There is a path that leads directly from a fountain at point  $A$  to a playground at point  $B$ .

What is the direct distance, to the nearest tenth of a unit, from the fountain to the playground?

- A 4.5 units
- B 7.1 units
- C 7.2 units
- D 10.0 units

129820A Constructed Response Common

4. Are Facebook users more likely to also use Twitter? A survey of 266 students revealed that 201 used both Facebook and Twitter, 4 used Twitter but not Facebook, 41 used Facebook but not Twitter, and 20 used neither.
- a. Construct a two-way table that summarizes the data given above.
  - b. Compute the relative frequency of Twitter users among Facebook users. Round the relative frequency to the nearest whole percent.
  - c. Compute the relative frequency of Twitter users among non-Facebook users. Round the relative frequency to the nearest whole percent.
  - d. Answer the original question: Are Facebook users more likely to use Twitter than non-Facebook users? Use your results from Parts b and c to explain how you know.

189653A Cluster Common 189654A Passage Common

Use the information below to answer questions 5 and 6.

Fred and Owen both found coins in their desks. The table below shows some of the results of their findings.

	Pennies	Nickels	Dimes	Quarters
Fred	3	4	2	5
Owen	2	1		6

189655A Multiple Choice A Common

5. Which piece of information is not sufficient to complete the table?
- A The total value of the coins in Fred's desk.
  - B The total value of the coins in Owen's desk.
  - C The total number of coins in both students' desks.
  - D The total value of the coins in both students' desks.

189656A Multiple Choice B Common

6. The total value of Owen's coins is \$2.07. Owen claims this expression represents the fraction of the coins in his desk that have a value greater than \$0.05.

$$\frac{5 + 6}{1 + 2}$$

Is Owen's claim true?

- A Yes, his claim is true.
- B No, he should add 11 to the denominator.
- C No, she should add 1 to the numerator and 5 to the denominator.
- D No, she should add 3 to the numerator and 6 to the denominator.