

NAME _____ Test Grade: _____ Deadline: _____

Retest Review #5 - Functions Part 2

The total cost of renting a car is \$25 per day plus an initial fee of \$100.

1. Write a function that can be used to find C, the total cost of renting the car for d days.

2. What would be the total cost of renting a car for 9 days?

3. Find the number of days you could rent a car for \$275.

Coach Todd is ordering uniforms for his volleyball team from an online company. Each uniform costs \$42, and there is a \$35 processing fee. The function $y = 42x + 35$ can be used to find the total cost for ordering x uniforms.

4. *Circle one:* The domain of this function is discrete / continuous.

5. There are at least 9 players but no more than 13 players on the team.

_____ What is the domain for this situation?

A. $0 \leq x \leq 13$

C. {413, 455, 497, 539, 581}

B. {9, 10, 11, 12, 13}

D. $413 \leq x \leq 581$

_____ What is the range for this situation?

C. $0 \leq x \leq 13$

C. {413, 455, 497, 539, 581}

D. {9, 10, 11, 12, 13}

D. $413 \leq x \leq 581$

_____ 6. A building is composed of floors that each measure 10 feet high. There is an antenna on top of the building that measures 15 feet high. The total height of the building can be found using the function $y = 10x + 15$. What does the variable x represent in this situation?

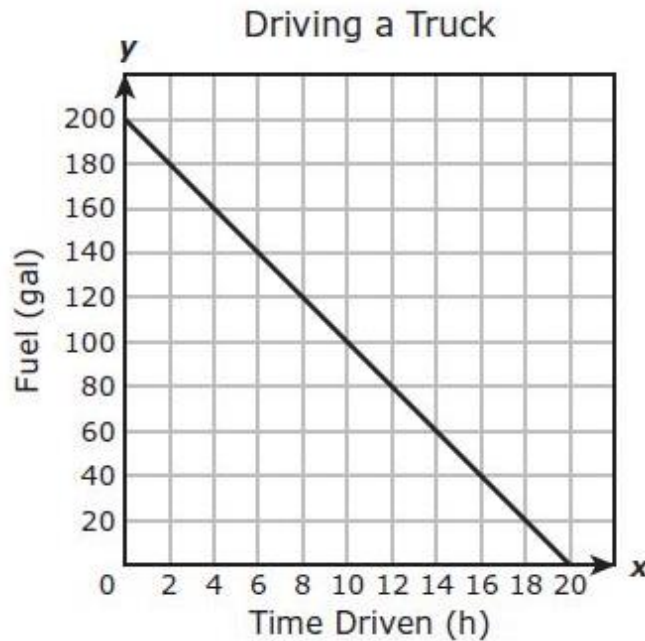
A. The total height of the building

C. The number of floors in the building

B. The height of each floor

D. The height of the antenna

The graph below shows the relationship between the number of gallons of fuel remaining in a truck and the number of hours the truck has been driven. Use the graph to answer questions 7 – 9.



_____ 7. Which of the following is false about the information given in the graph?

- A. The initial amount of fuel in the truck is 200 gallons.
- B. At 10 hours, there is half the initial amount of fuel remaining.
- C. It takes 20 hours for the truck to run out of fuel.
- D. The domain of the function is discrete.

_____ 8. What does the ordered pair (16, 40) mean for this situation?

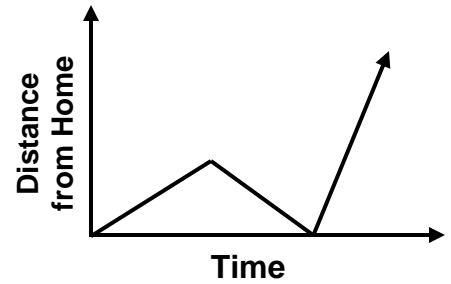
- A. At 16 hours, there are 40 gallons of fuel remaining in the truck.
- B. It costs \$40 to drive the truck 16 miles.
- C. At 40 hours, there are 16 gallons of fuel remaining in the truck.
- D. At 16 hours, there are 40 trucks on the road.

_____ 9. What is domain of the function for this situation?

- A. $0 \leq x \leq 200$
- B. All integers from 0 to 20
- C. $20 \leq x \leq 200$
- D. $0 \leq x \leq 20$

_____ 10. Which of the following best describes the graph?

- A. Tom took his dog for a walk to the park. He set off slowly and then increased his pace. At the park Tom turned around and walked slowly back home.
- B. Tom set out for a jog at a steady pace. At the end of his road he bumped into a friend and his pace slowed. When Tom left his friend he walked quickly back home.
- C. Tom walked slowly to his mailbox. He walked back to the house to put on his shoes. He then rode his bike to work.
- D. Tom went for a walk. He set off slowly and then stopped for a while to watch a squirrel in a tree. He walked quickly back home to get his camera.



Answers in random order:

A	C	D	$C = 25d + 100$
B	C	7	discrete
C	D	325	