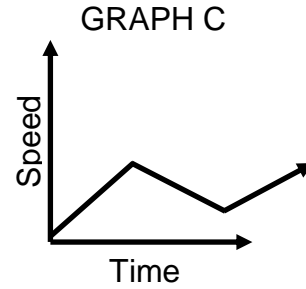
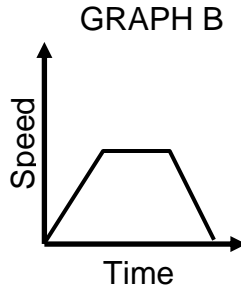
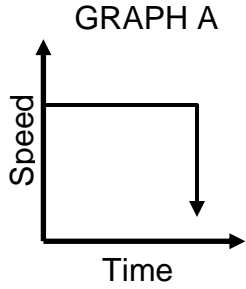


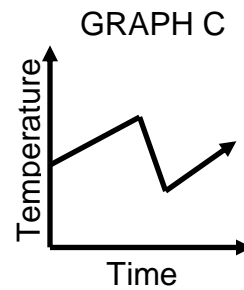
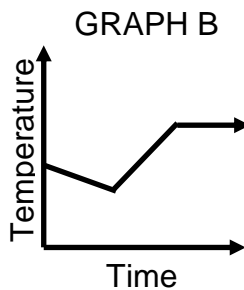
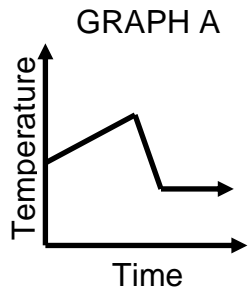
ANALYZING GRAPHS OF FUNCTIONS – DAY 1

Identify the graph that best matches the statement.

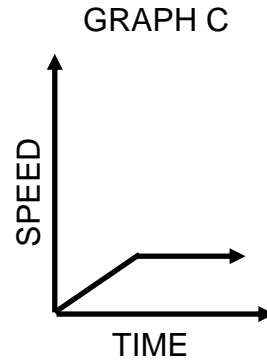
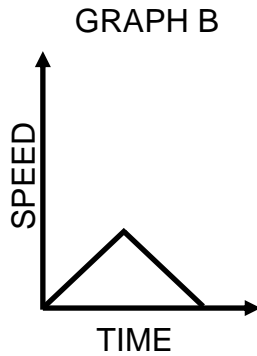
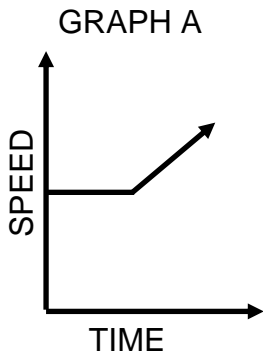
1. After stopping at a stop sign, a bus turns right onto a street, steadily increasing its speed until it reaches the 35 mph speed limit. The driver continues along the street until he sees a passenger. He slows and then stops to pick up the passenger.



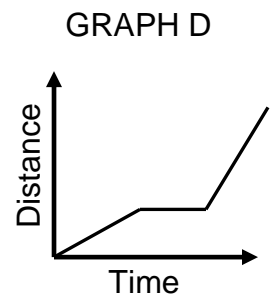
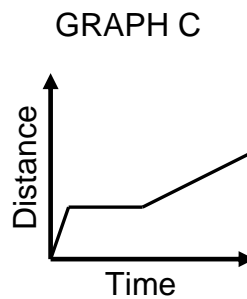
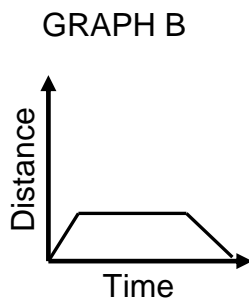
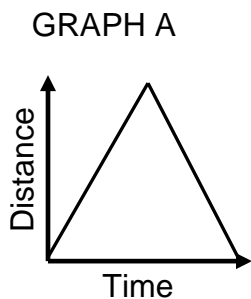
2. The outside temperature increases steadily until noon, when a cold front blows through. The temperature quickly decreases and then remains at fifty degrees for the rest of the day.



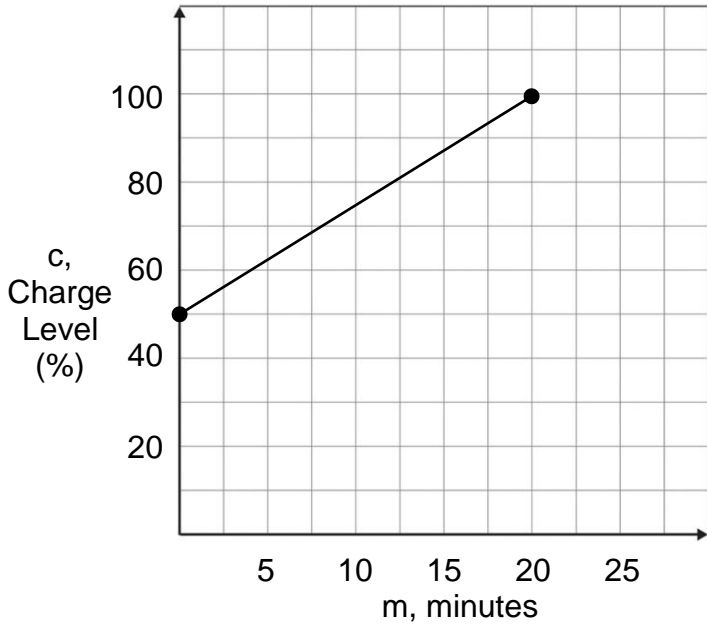
3. For a certain time Lucy jogs up a hill at a steady speed. Then she runs down the hill and picks up her speed.



4. On the way to school, Jordan jogs quickly up a hill, takes a break, and then walks slowly down the other side. Which graph best represents Jordan's distance from home during her walk to school?



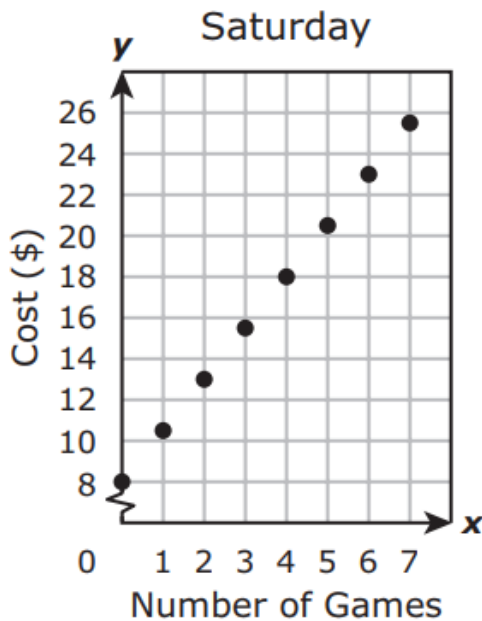
The graph below shows the charge level of a cell phone after it is placed on a charger.



5. What is the charge level of the cell phone when it is first placed on the charger?

6. How long does it take for the phone to fully charge? _____
7. What is the approximate charge level at 15 minutes? _____
8. *Circle one:* Discrete or Continuous
9. Domain: _____
Range: _____

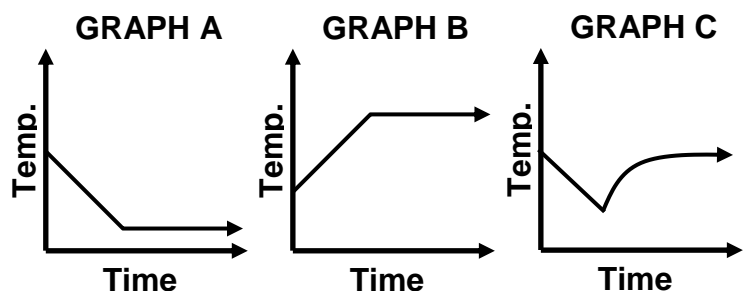
The graph below shows y , the cost of attending a county fair on Saturday and playing x games.



10. How much does it cost to just to attend the fair (and play no games)? _____
11. How much does it cost to attend the fair and play 4 games? _____
12. If the cost of attending the fair and playing games is \$13, how many games were played? _____
13. *Circle one:* Discrete or Continuous
14. Domain: _____

Match the description to its most correct graph.

15. _____ In August you enter a hot house and turn on the air conditioner.
16. _____ You put ice cubes in your fruit punch and then drink it slowly.
17. _____ In January you enter a cold house and turn up the thermostat to 68°.



Steffany goes to Tony's Pizza for a medium pizza, which costs \$7.95 plus \$0.50 per topping.

18. Write an equation that can be used to find c , the total cost of a medium pizza based on t , the number of toppings.

Equation: _____

19. What is the cost of a medium pizza with 2 toppings? _____

20. How many toppings can Steffany get with \$10? _____

21. *Circle one:* Discrete or Continuous

22. If you get between 3 and 5 toppings on a medium pizza, what is the range for this situation?

A. {9.45, 9.95, 10.45}

B. $9.45 \leq c \leq 10.45$

C. $3 \leq t \leq 5$

D. {3, 4, 5}

_____ 23. Mr. Rodriguez purchased a new car for \$21,000 including taxes and insurance. If he makes monthly payments of \$305, which equation best describes r , the remaining balance after he makes p payments?

A. $r = 21000 + 305p$

C. $r = 21000(305 - p)$

B. $r = 21000p - 305p$

D. $r = 21000 - 305p$

_____ 24. The number of ferryboat trips, $f(c)$, needed to transport c cars in 1 day can be found using the function $f(c) = \frac{c}{20}$. If there are no more than 5,000 cars transported by ferryboat daily, what is the range of the function for this situation?

A. The set of all integers greater than or equal to 5,000

B. The set of all integers from 0 to 5,000

C. The set of all integers greater than or equal to 250

D. The set of all integers from 0 to 250

Review. Show all work.

25. _____ What value of x makes the equation $-5x - (-7 - 4x) = -2(3x - 4)$ true?

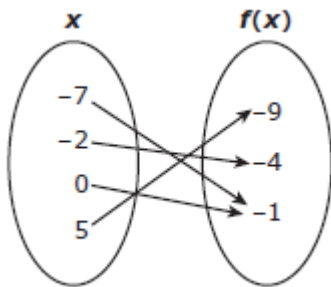
A. $x = \frac{1}{3}$

B. $x = \frac{1}{5}$

C. $x = 3$

D. $x = 5$

26. _____ What is the range of the function shown below?



F $\{-7, -2, 0, 5\}$

G $\{-9, -4, -1\}$

H $\{-9, -7, -4, -2, -1, 0, 5\}$

J $\{-1\}$

Is the given relation a function? Yes or No

27. If $p(x) = 5(x^2 + 1) + 16$, what is the value of $p(11)$?

28. The area of a rectangle is $54x^9y^8$ square yards. If the length of the rectangle is $6x^3y^4$ yards, which expression represents the width of the rectangle in yards?