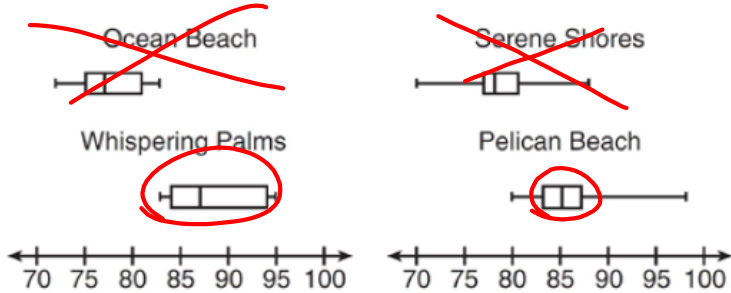


Do Now:

Corinne is planning a beach vacation in July and is analyzing the daily high temperatures for her potential destination. She would like to choose a destination with a high median temperature and a small interquartile range. She constructed box plots shown in the diagram below.

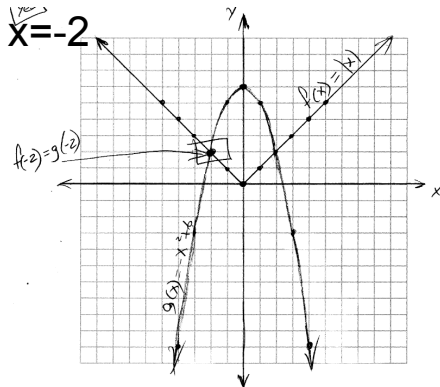


Which destination has a median temperature above 80 degrees and the smallest interquartile range?

- ~~1)~~ Ocean Beach
- ~~2)~~ Whispering Palms
- ~~3)~~ Serene Shores
- 4)** Pelican Beach

May 29-11:00 AM

33. Yes $f(-2)=g(-2)$ b/c based on the graph, the functions intersect at

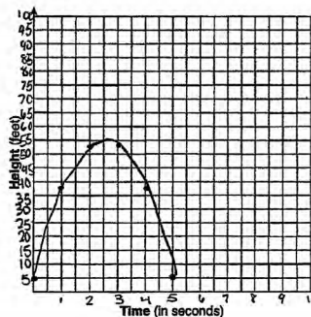


34. \$12.05 (1 pizza)

35. $f(x) = .75x + 4.5$

\$0.75 on each card, but initially spent \$4.50 to begin making the cards.

36



x	y
0	5
1	37
2	53
3	53
4	37
5	5

vertex (2.5, 55) the ball started to fall after 2.5 seconds at a height of 55ft.

37. a) $1000 - 60x = 600 - 20x$

b) $x = 10$ months, \$400

c) Ian is incorrect. He will still owe \$40.

May 29-11:01 AM

31 A family is traveling from their home to a vacation resort hotel. The table below shows their distance from home as a function of time.

Time (hrs) x	0	2	5	7
Distance (mi) y	0	140	375	480

Determine the average rate of change between hour 2 and hour 7, including units.

$(2, 140)$ $(7, 480)$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{480 - 140}{7 - 2}$$

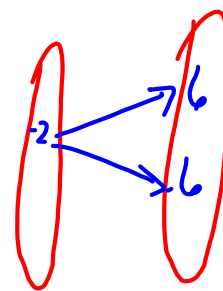
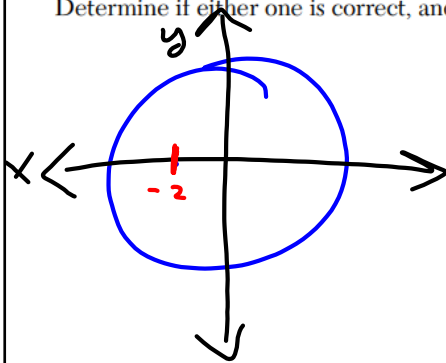
$$\frac{340}{5} = 68 \text{ mph}$$

May 29-10:49 AM

32 Nora says that the graph of a circle is a function because she can trace the whole graph without picking up her pencil.

Mia says that a circle graph is *not* a function because multiple values of x map to the same y -value.

Determine if either one is correct, and justify your answer completely.

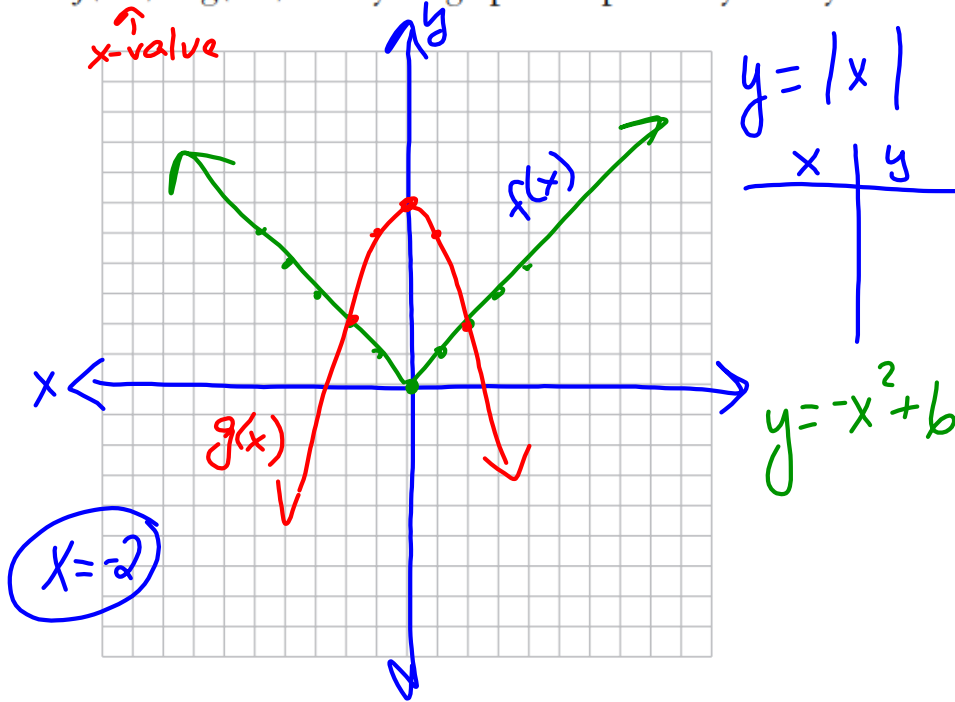


Does not pass
vertical line test

one x -value \rightarrow two y -values

May 29-10:55 AM

33 Graph $f(x) = |x|$ and $g(x) = -x^2 + 6$ on the grid below.
 Does $f(-2) = g(-2)$? Use your graph to explain why or why not.



May 29-10:55 AM

34 Two friends went to a restaurant and ordered one plain pizza and two sodas. Their bill totaled \$15.95. Later that day, five friends went to the same restaurant. They ordered three plain pizzas and each person had one soda. Their bill totaled \$45.90.

Write and solve a system of equations to determine the price of one plain pizza. [Only an algebraic solution can receive full credit.]

let $x = \text{pizza}$
 $y = \text{soda}$

$$\begin{aligned} [x + 2y = 15.95] \cdot 3 & \quad -3x - 6y = -47.85 \\ 3x + 5y = 45.90 & \quad 3x + 5y = 45.90 \end{aligned}$$

$$\begin{aligned} & \quad -y = -1.95 \\ & \quad \boxed{y = 1.95} \\ \boxed{x = \$12.05} & \end{aligned}$$

May 29-10:58 AM

35 Tanya is making homemade greeting cards. The data table below represents the amount she spends in dollars, $f(x)$, in terms of the number of cards she makes, x .

x	f(x)
4	7.50
6	9
9	11.25
10	12

Linear Regression
option 4

Write a linear function, $f(x)$, that represents the data.

$$f(x) = .75x + 4.5$$

Explain what the slope and y -intercept of $f(x)$ mean in the given context.

$m \rightarrow$ amount spent per card
 $b \rightarrow$ fixed cost

May 29-10:58 AM

36 Alex launched a ball into the air. The height of the ball can be represented by the equation $h = -8t^2 + 40t + 5$, where h is the height, in units, and t is the time, in seconds, after the ball was launched. Graph the equation from $t = 0$ to $t = 5$ seconds.

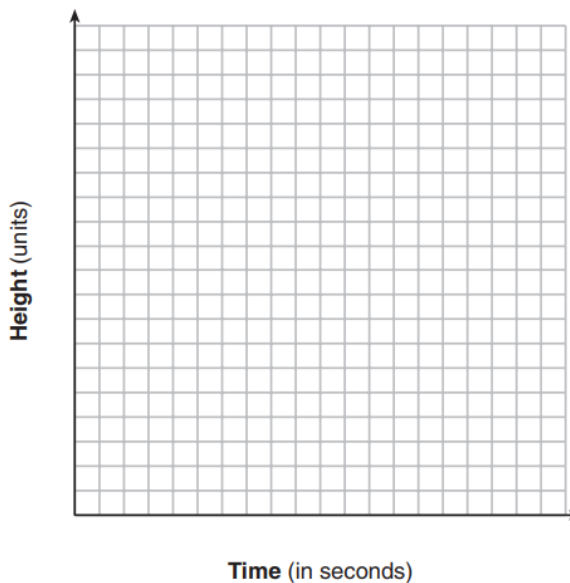
ADS

$$x = \frac{-b}{2a}$$

$$x = \frac{-40}{2(-8)}$$

$$x = \frac{40}{16}$$

$$x = 2\frac{1}{2}$$



x	y
0	5
1	37
2	53
3	53
4	37
5	5

State the coordinates of the vertex and explain its meaning in the context of the problem.

May 29-10:58 AM

37 Ian is borrowing \$1000 from his parents to buy a notebook computer. He plans to pay them back at the rate of \$60 per month. Ken is borrowing \$600 from his parents to purchase a snowboard. He plans to pay his parents back at the rate of \$20 per month.

Write an equation that can be used to determine after how many months the boys will owe the same amount.

Let $x = \#$ of months
 $1000 - 60x = 600 - 20x$

Determine algebraically and state in how many months the two boys will owe the same amount. State the amount they will owe at this time.

$$\begin{array}{r} 1000 - 60x = 600 - 20x \\ + 60x \qquad \qquad + 60x \\ \hline 1000 = 600 + 40x \\ - 600 \quad - 600 \\ \hline 400 = 40x \\ \frac{400}{40} = \frac{40x}{40} \quad x = 10 \text{ months} \end{array}$$

Ian claims that he will have his loan paid off 6 months after he and Ken owe the same amount. Determine and state if Ian is correct. Explain your reasoning.

16 months later
 $1000 - 60(16)$
 $\$40$

May 29-10:59 AM