

Warmup 10/(The number of pairs of chromosomes your cells have)

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EACH PERSON NEEDS A WHITEBOARD, MARKER, ERASER IN THEIR DESK!

Calvin goes to the fair and buys 50 tickets. Each ride he goes on costs 4 tickets.

- 1) Write an equation to calculate the number of tickets Calvin would have LEFT after x rides.
- 2) Write an equation to calculate the number of tickets Calvin has USED after x rides.
- 3) Use the equation from #1 (tickets LEFT), to make a table, using x -values from 0 to 5.
- 4) If you graphed the points from your table, would it make the most sense to connect them or to leave them as separate dots? Why?

(Warmup continued on the next slide)

Warmup (continued)

For 5-8, match. Use the equation for tickets LEFT: $y = 50 - 4x$

- | | |
|----------------|--------------------------|
| 5) INPUTS | # tickets per ride |
| 6) OUTPUTS | # of tickets he has left |
| 7) SLOPE | original # of tickets |
| 8) Y-INTERCEPT | # of rides |

More Practice: To connect or not
to connect???

Should we have connected these?

Example

- A tree was planted when it was 5 feet tall. Each year, it grew 3.5 more feet.

- $y = 3.5x + 5$

Yes, you can have fractions of a year. The numbers “in between” would make sense.

x (years)	y (height)
0	5
1	8.5
2	12
3	15.5
4	19
5	22.5

Should we have connected these?

- Bill had 50 cookies in a tub. He gave two cookies to each classmate.

- $y = 50 - 2x$ or $y = -2x + 50$

x (classmates)	y (cookies left)
0	50
1	48
2	46
3	44
4	42
5	40

*****No, the numbers “in between” do not make sense. The graph doesn’t continuously go from 50 to 48; it happens instantaneously*****

Should we have connected these?

- Each month, Bob's phone plan charges a \$10 flat fee, plus \$0.05 per text message sent.

- $y = 0.05x + 10$

*****No, the numbers “in between” do not make sense. The cost does not go up gradually from \$10.00 to \$10.05, it goes up instantaneously*****

x	y
0	10
1	10.05
2	10.10
3	10.15
4	10.20
5	10.25

FINAL NOTE about connecting points



- Sometimes, in your textbook, or in another problem, you might see the points connected, even if it technically wouldn't make sense.
- They do this because connecting the dots can help you see the overall trend better.

Homework Answers

Review: Equation from a table

1)

Pounds	Cost
5	14
6	16
7	18
8	20
9	22

$$y = 2x + 4 \quad \text{or} \quad (C = 2P + 4)$$

Which strategy to find the y-intercept do you think is easier? "Multiply it out" or "Extend the table?"

2)

x	y
10	-25
15	-40
20	-55
25	-70
30	-85

$$\text{Slope} = -15/5 = -3$$

$$y = -3x + 5$$

Which strategy to find the y-intercept do you think is easier? "Multiply it out" or "Extend the table?"