Data Collection in Cartoons

Wile E. Coyote rolls a boulder down a hill to get Road Runner. Here is a table that lists the height of the boulder above the road as a function of time in seconds.

Time (Secs)	0	1.5	3.5	5	6.5	8
Height (ft)	150	124	87	62.5	36.5	10

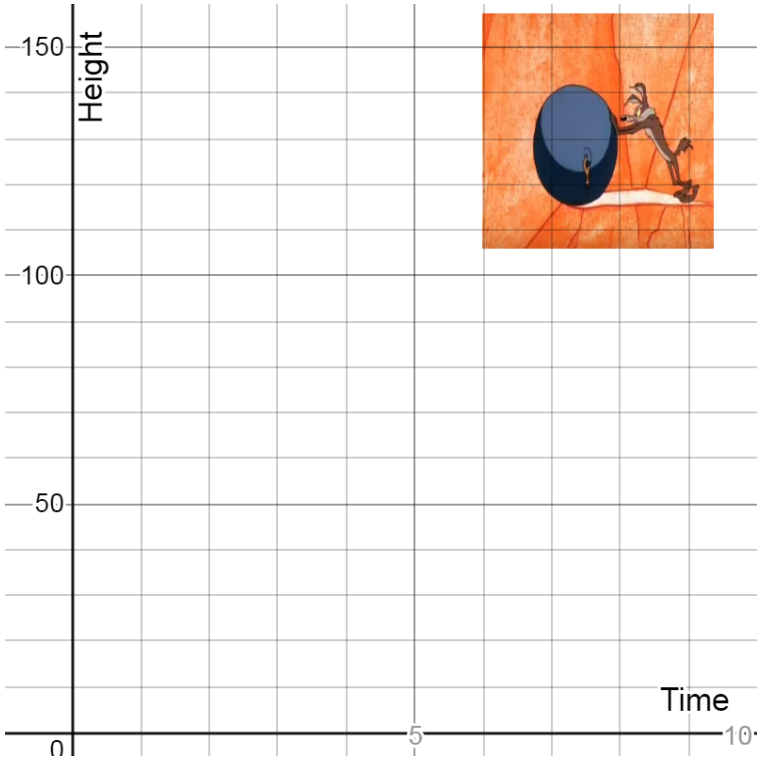


Image from youtube.com

Questions:

1) What is the Domain of the situation?

2) What is the Range of the Situation?

3) Is the relationship functional? Why?

4) What is the linear Regression equation?

5) What is the rate of change of the situation? (include units)

6) What does the y-intercept mean in the situation?

7) What does the x-intercept mean in the situation?

8) Is this a positive or negative association?

9) If the boulder rolls 5.1 seconds, what is the estimated height above the road?

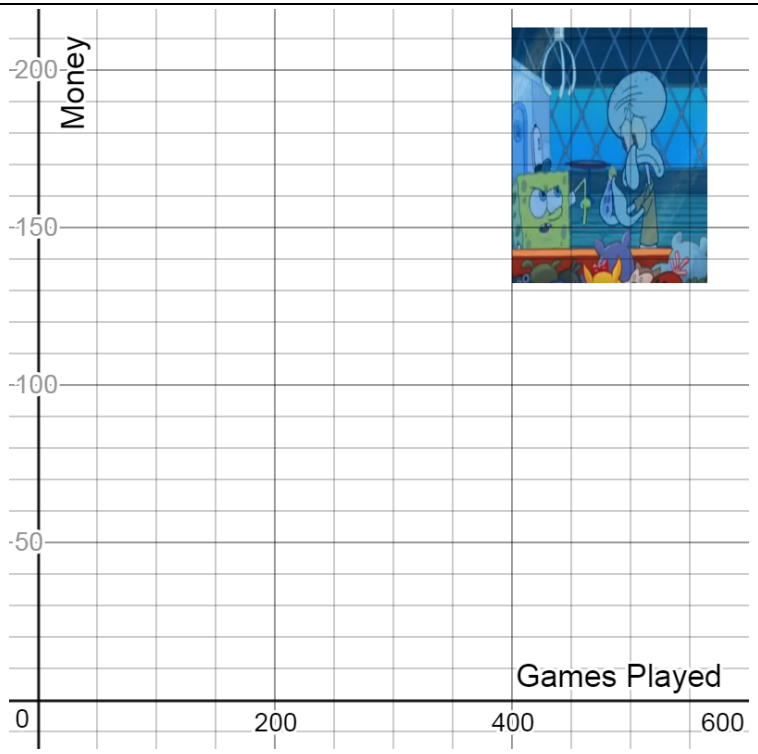
10) If boulder is 12 feet above the road, how many seconds did it roll?

11) If f(x) is the regression equation, what is f(7.3)?

Data Collection in Cartoons

Squidward is playing the claw game to get a prize. The table below shows the amount of money he has left as a function of the number of times he plays the game.

Games	14	36	83	148	219	467
Money ($$$$)	196.50	191	179.25	163	145.25	83.25



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9) If Squidward plays 399 times, what is the estimated amount of money he has left?

10) If Squidward has $56.00 left in his wallet, how many games has he played?

11) If f(x) is the regression equation, what is f(839)?

12) Is f(839) possible? Why?