20th November

Completed Exercises from the lecture on

< Two-variable Data >

L. Hard, Pages 2-5;

Can be found below.

Hard

(1) **d6af3572** MULTIPLE CHOICE One answer only

The scatterplot above shows the federal-mandated minimum wage every 10 years between 1940 and 2010. A line of best fit is shown, and its equation is $y = 0.096x - 0.488$. What does the line of best fit predict about the increase in the minimum wage over the 70-year period?

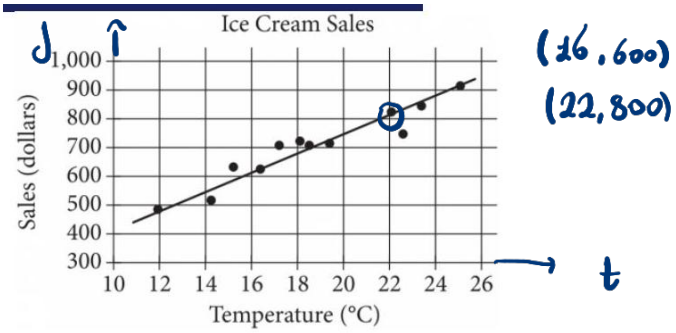
a. ~~Each year between 1940 and 2010, the average increase in minimum wage was 0.49 dollars.~~

b. ~~Every 10 years between 1940 and 2010, the average increase in~~ minimum wage was 0.096 dollars.

c. ~~Every 10 years between 1940 and 2010, the average increase in minimum wage was 0.488 dollars.~~

d. Each year between 1940 and 2010, the average increase in minimum wage was 0.096 dollars.

(2) **1e1027a7** MULTIPLE CHOICE One answer only



The scatterplot above shows a company's ice cream sales d, in dollars, and the high temperature t, in degrees Celsius (°C), on 12 different days. A line of best fit for the data is also shown. Which of the following could be an equation of the line of best fit?

~~a. $d = 0.03t + 402$~~

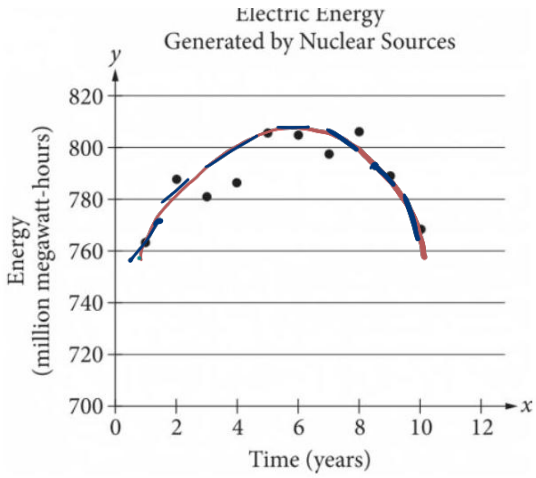
b. $d = 33t + 300$

~~c. $d = 10t + 402$~~

d. $d = 33t + 84$

(5) **e821a26d** MULTIPLE CHOICE One answer only

The scatterplot below shows the amount of electric energy generated, in millions of megawatt-hours, by nuclear sources over a 10-year period.



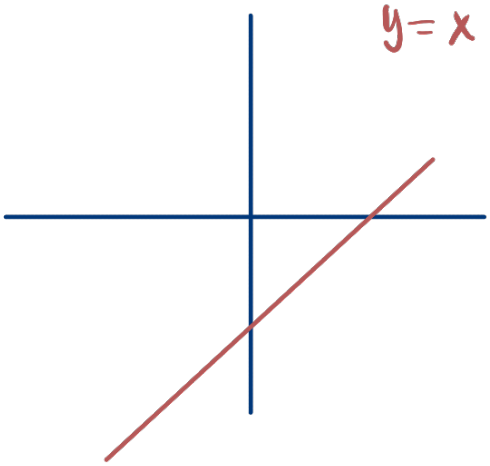
$f(x) = ax^2 + bx + c$

$a < 0$ $\quad$ $a > 0$

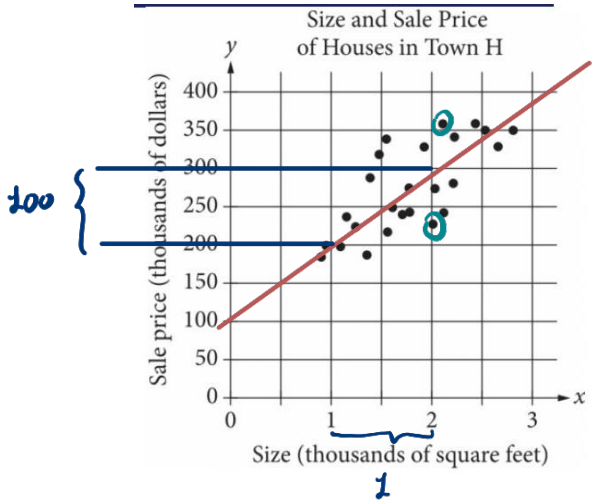
Of the following equations, which best models the data in the scatterplot?

a. $y = 1.674x^2 + 19.76x + 745.73$
b. $y = -1.674x^2 - 19.76x - 745.73$
c. $y = 1.674x^2 + 19.76x - 745.73$
d. $y = -1.674x^2 + 19.76x + 745.73$

$y = x - 2$



(6) **79137c1b** MULTIPLE CHOICE One answer only



The scatterplot above shows the size x and the sale price y of 25 houses for sale in Town H. Which of the following could be an equation for a line of best fit for the data?

a. $y = 100x + 0$
b. $y = 50x + 100$
c. $y = 100x + 100$
d. $y = 200x + 100$