5.2 Best Fit Lines

NOTES

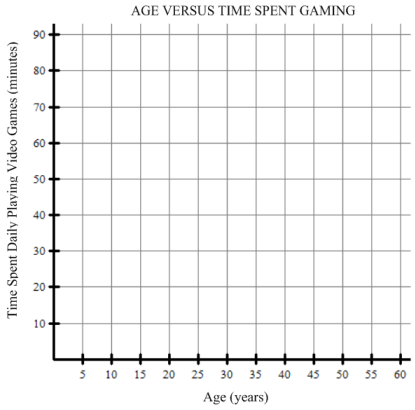
ALGEBRA

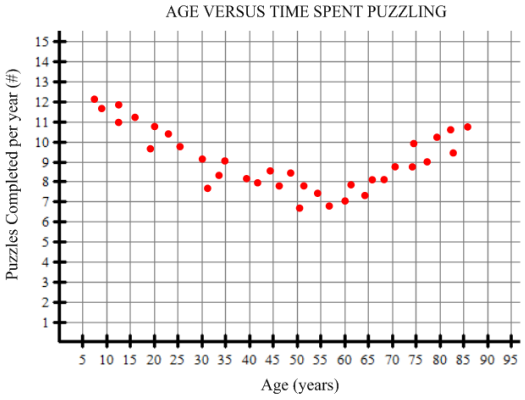
Write your questions here!

SCATTERPLOTS

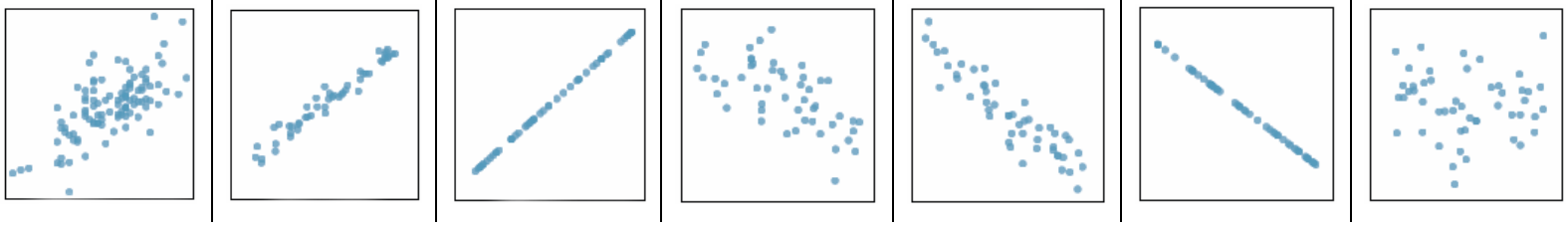
The table shows the time spent playing video games daily for selected ages.

Age (years)	Time (minute)
10	85
15	75
20	80
22	78
26	65
30	60
35	48
40	38
44	30





CORRELATION



Construct a Scatterplot on graphing calculator

Sandwich	Total Fat (g)	Total Calories
Hamburger	9	260
Cheeseburger	13	320
Quarter Pounder	21	420
Quarter Pounder with Cheese	30	530
Big Mac	31	560
Arch Sandwich Special	31	550
Arch Special with Bacon	34	590
Crispy Chicken	25	500
Fish Fillet	28	560
Grilled Chicken	20	440
Grilled Chicken Light	5	300

The equation of the best fit line is $y = 12x + 193$

Predict the calories of a sandwich that has 18 grams of fat.

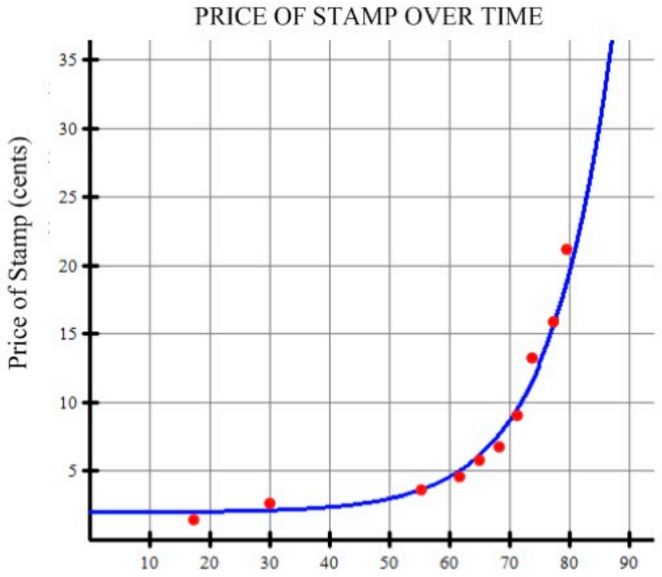
Predict the fat grams of 400 calorie sandwich.

Extrapolation

Predict the calories of the Grilled Cheese Burger that has 79 grams of fat. Extrapolation!

The scatterplot shows the price of stamps over time. Time is in years since 1900.

So, $x = 20$ means 20 years since 1900 or 1920



The equation of the best fit curve is $y = 1.1^{x-50} + 2$

Use the equation to predict the price of stamp in 1940.

The actual price of a stamp in 1972 was 13 cents. How far off is the model's prediction?