

Algebra 1 4.5

Create scatterplots from data

Write equations of best-fit lines from data

slope-intercept form

activity: whiteboards

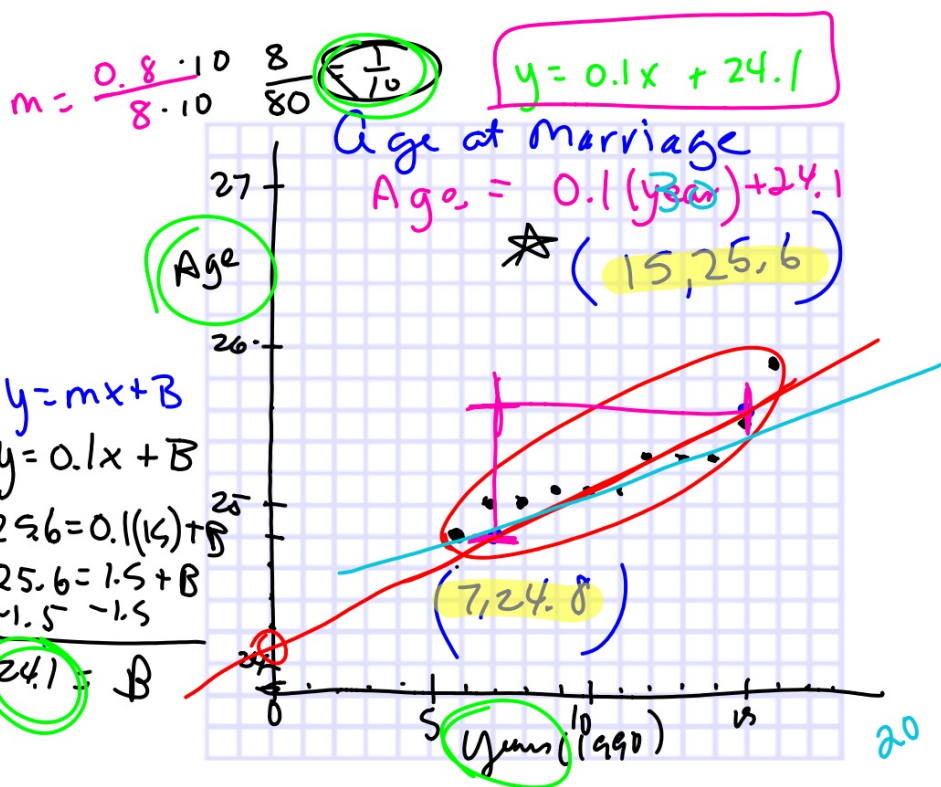
$$y = mx + b$$

3. **CCSS SENSE-MAKING** The table shows the median age of females when they were first married.

X Year	Y Age
1996 6	24.8
1997 7	25.0
1998 8	25.0
1999 9	25.1
2000 10	25.1
2001 11	25.1
2002 12	25.3
2003 13	25.3
2004 14	25.3
2005 15	25.5
2006 16	25.9

Source: U.S. Bureau of Census

1. Make a scatterplot ✓
2. Draw a line of fit ✓
3. Write the equation of the line of fit. ✓
4. Explain.

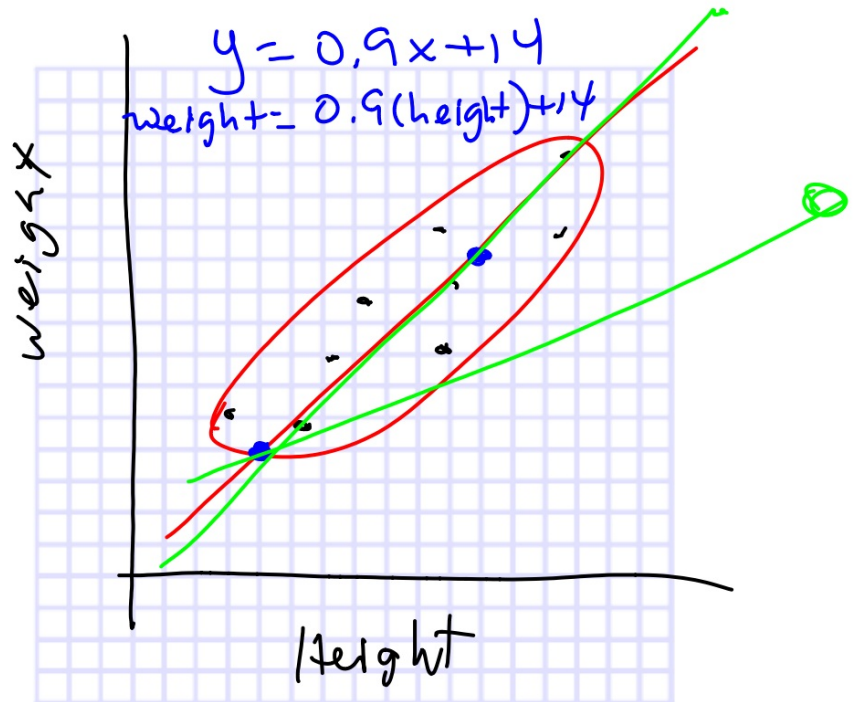


10. **CCSS SENSE-MAKING** The Body Mass Index (BMI) is a measure of body fat using height and weight. The heights and weights of twelve men with normal BMI are given in the table at the right.

x
y

Height (in.)	Weight (lb)
62	115
63	124
65	120
67	134
67	140
68	138
68	144
68	152
69	147
72	155
73	168
73	166

1. Make a scatterplot
2. Draw a line of fit
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1. Make a scatterplot
2. Draw a line of (best) fit
3. Write the equation of the line of fit.
4. Explain.

WS (pr) 8-56

- 11 GEYSERS** The time to the next eruption of Old Faithful can be predicted by using the duration of the current eruption.

Duration (min)	1.5	2	2.5	3	3.5	4	4.5	5
Interval (min)	48	55	70	72	74	82	93	100



1. Make a scatterplot
2. Draw a line of (best) fit
3. Write the equation of the line of fit.
4. Explain.

Real-World Example 1 Best-Fit Line



MOVIES The table shows the amount of money made by movies in the United States.

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Income (\$ billion)	7.48	8.13	9.19	9.35	9.27	8.95	9.25	9.65	9.85	10.21

