

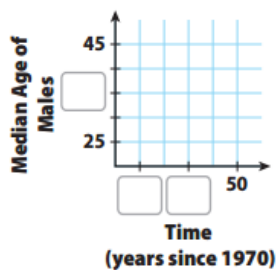
The table lists the median age of males based on the results of the U.S. Census.

(Explore Activity)

Year	1970	1980	1990	2000	2010
Median age of males	26.8	28.8	31.6	34.0	35.5

- Let x represent time in years after 1970 and let y represent median age. Make a table of paired values of x and y .
- Draw a scatter plot and line of fit.

x	0		20	30	
y		28.8			35.5



- Find an equation of the line of fit. (Explore Activity)

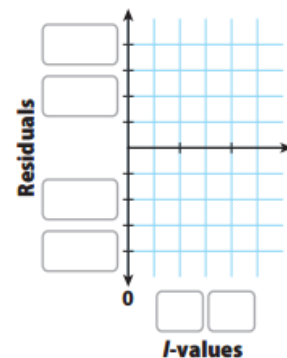
A student fit the line $y = 0.23x + 27$ to the data above. Use this model for Exercises 4–6.

- Calculate the residuals. (Example 1)

x	y actual	y predicted	Residual
0		27	
	28.8		-0.5
20			
30		33.9	
	35.5		-0.7

- Calculate the residuals, and make a residual plot.

l	w actual	w predicted	Residual
0	3.4		
10	5.8		
20	8.3		
30	10.6		
40	12.8		
50	15.2		



- Evaluate the suitability of a linear fit and the quality of the fit.
