HOME, SWEET HOME

Valuation: Community #2

Use the data provided online for Community #2 to answer the following questions.

1. Plot the Living Area Square Footage and Sale Price for the selected community on the coordinate plane on page 2.

2. Draw the line of best fit.

3. Use the formula for slope to determine the slope (*m*) of the line to the hundredths place. Select two points that are close to or on your best fit line to calculate the slope.

Student should identify 2 points and use slope formula correctly.
Slope should be approximately 0.17.

4. Using the same two points, determine the *y*-intercept (*b*) of the line to the nearest integer.

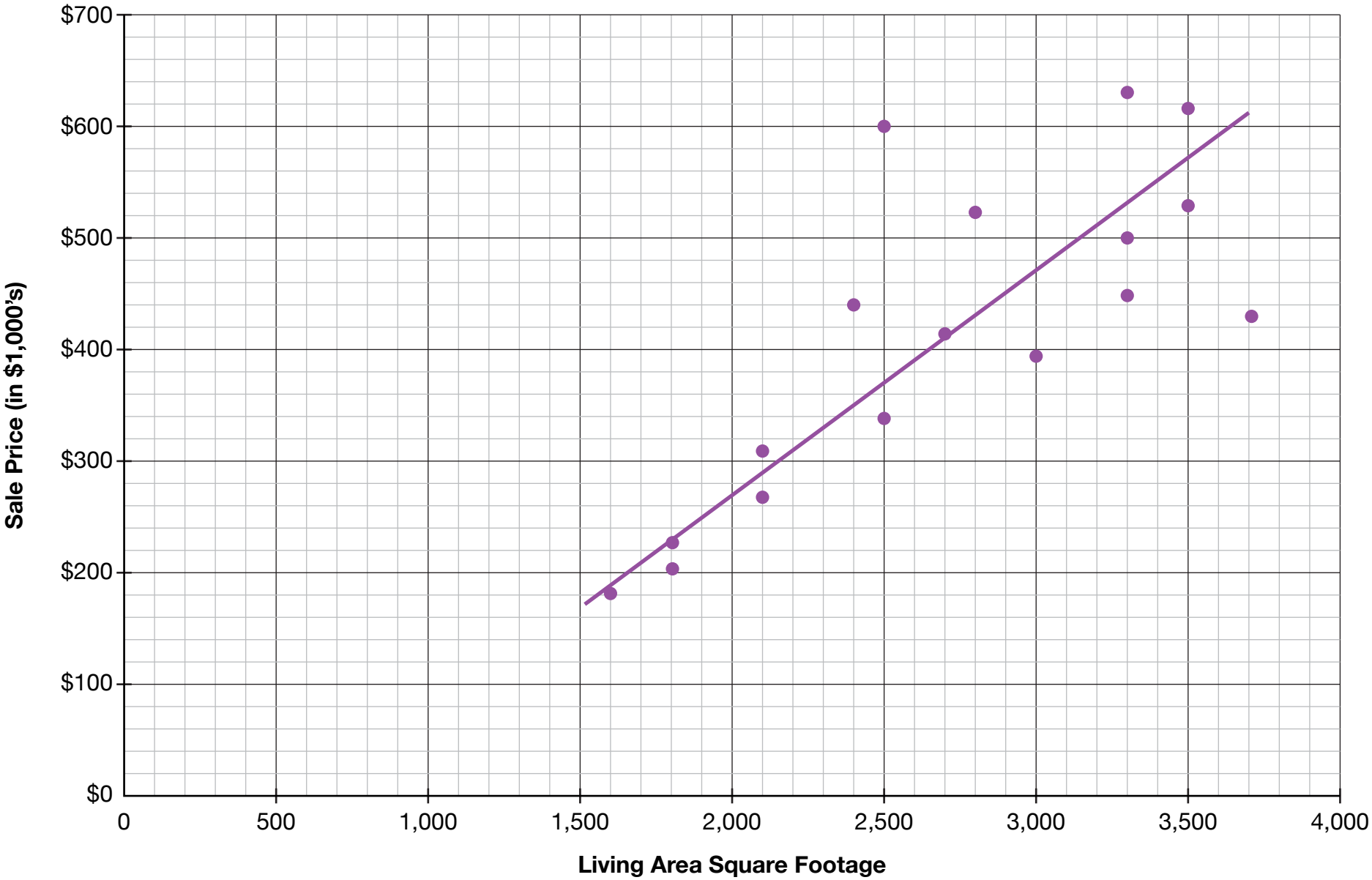
Student should use slope and an *x* value to find the *b* value in $y = mx + b$
y-intercept should be approximately -38.

5. Use the slope and *y*-intercept to write a formula representing the relationship between property living square footage and sales price in slope-intercept format, $y = mx + b$. Define the variables you use in your formula. This is your valuation formula based on sale price.

Using the data and least squares method to determine the equation of the line of best fit, the equation is $y = 0.17x - 38$ where *x* represents the square footage and *y* represents the sale price. *Students are not expected to get this exact value.*

6. Based on the community overview, what other assessment criteria increases the value of a residential property?

An in-ground pool



7. How does a pool increase tax valuation? Describe it in words.

The tax valuation is increased by $12 for every square foot size of the pool.

8. Use the equation and logic explained above to determine the valuation for the following properties.

Property R	
Living Area, square feet	1196
Total Area, square feet	2165
Bedrooms	2
Baths	1
Total Rooms	8
Fireplace	1
Deck/Balcony	No
Porch	Yes
Central AC	No
Garage	Yes
Pool , square feet	0
Land, acres	0.2

Property S	
Living Area, square feet	4461
Total Area, square feet	8452
Bedrooms	4
Baths	3.5
Total Rooms	10
Fireplace	3
Deck/Balcony	Yes
Porch	Yes
Central AC	Yes
Garage	Yes
Pool , square feet	800
Land, acres	0.2

Valuation: $165,320

Valuation: $729,970 ($720,370 + 800*12)

Student should accurately use their equation and substitute the *x*-value with the Living Area square footage value to determine the *y*-value.

For Property S, student should determine accurate additional value of pool at 800*12 and either convert this to represent $1000's or add it to the total once the *y* value is converted to represent dollars. Approximate values have been provided above, using the least squares equation identified above.

