Corrections for _____

Identify what you missed and why below. If your responses do not fit in the space provided, use a separate sheet of paper for those questions.

For the "Why I chose this answer" column, indicate the reason for missing the problem using the choices below. Use a separate sheet of paper if necessary.

1) I didn't understand the question
2) I thought I had this right
3) I studied/learned this but forgot
4) I had no clue about this so I guessed
5) I ran out of time
6) I made a careless mistake

Question number missed	My answer	Why I chose this answer	What information I need/steps I need to take to correctly answer this question (show your work/ calculations)	Revised answer

Corrections for _____

Question number missed	My answer	Why I chose this answer	What information I need/steps I need to take to correctly answer this question (show your work/ calculations)	Revised answer

Tracking My Progress in Mathematics

Make sense of problems and persevere in solving them – being able to explain the meaning of a problem; planning a solution pathway rather than immediately jumping into an attempt; monitoring and evaluating progress and changing course if necessary; continually asking "does this make sense?"

4						
3						
2						
1						
0						
	Unit 1:		Unit 2:		Unit 3:	
	Self Assessment	Teacher	Self Assessment	Teacher	Self Assessment	Teacher

Reason abstractly and quantitatively – making sense of quantities and their relationships in problem situations; representing situations symbolically, and contextualizing symbols into understandable quantities, units and relationships

4						
3						
2						
1						
0						
	Unit 1:		Unit 2:		Unit 3:	
	Self Assessment	Teacher	Self Assessment	Teacher	Self Assessment	Teacher

Construct viable arguments – using stated assumptions, definitions, and results to make conjectures and construct arguments that build off of a logical progression of reasoning

4						
3						
2						
1						
0						
	Unit 1:		Unit 2:		Unit 3:	
	Self Assessment	Teacher	Self Assessment	Teacher	Self Assessment	Teacher

Attention to precision – communicating precisely; using mathematical symbols consistently and appropriately; specifying of units of measure; labeling axes, tables and graphs; calculating accurately

4						
3						
2						
1						
0						
	Unit 1:		Unit 2:		Unit 3:	
	Self Assessment	Teacher	Self Assessment	Teacher	Self Assessment	Teacher

Note: This could be printed directly on a unit assessment

Unit Assessment: _____

For this unit, you demonstrated the following for each category:

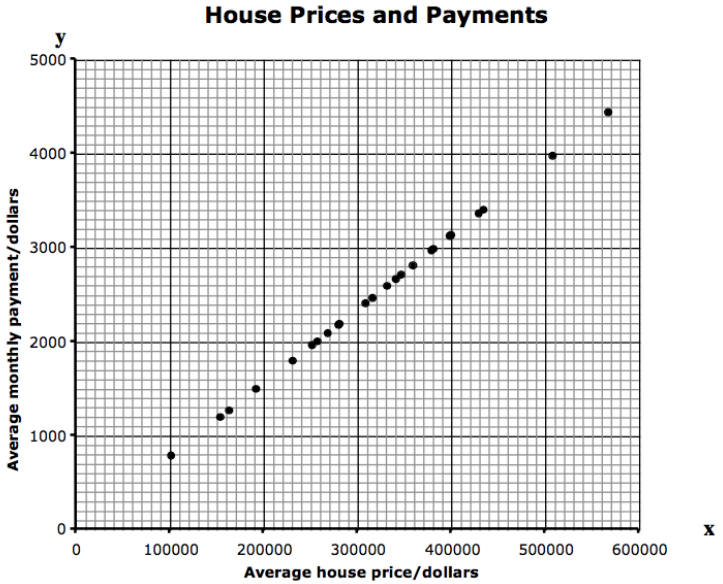
	Make sense of problems and persevere in solving them	
	Reason abstractly and quantitatively	
	Construct viable arguments	
	Attention to precision	
Comments:		

Sample:

Unit Assessment: Rate of Change

For this unit, you demonstrated the following for each category:

	Make sense of problems and persevere in solving them	3
	Reason abstractly and quantitatively	1
	Construct viable arguments	1
	Attention to precision	1
Comments:	Adrian – I appreciate how well you showed perseverance during this unit. I can't wait to see how you progress in the other categories as the semester goes on	



Find the monthly payment for a house costing $450 000.

3500

What do we know about this student?

"…being good at mathematics involves many different ways of working…it involves asking questions, drawing pictures and graphs, rephrasing problems, justifying methods, and representing ideas *in addition to* calculating with procedures."

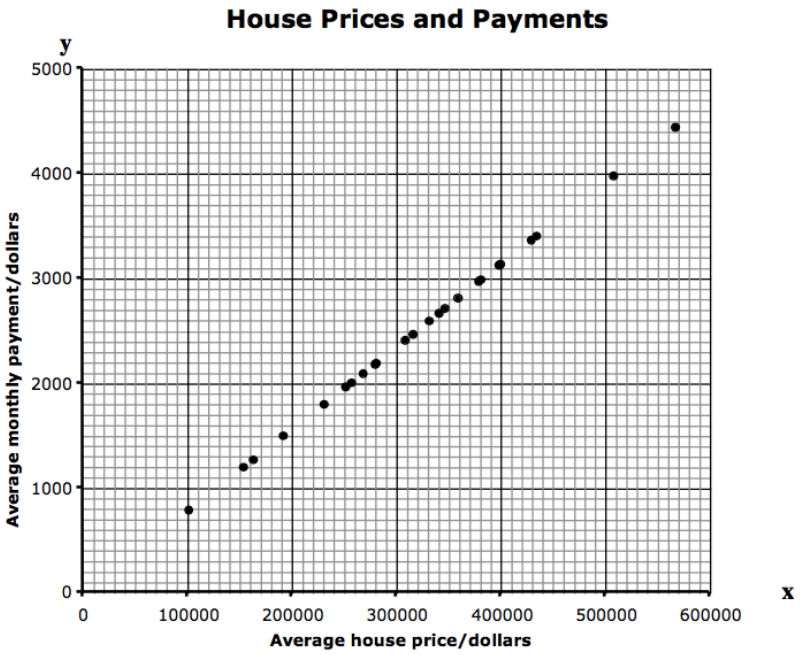
-Jo Boaler, Professor of Mathematics Education, Stanford University

The mathematical competencies:

- ☐ asking questions
- ☐ drawing/creating pictures and graphs
- ☐ rephrasing problems
- ☐ justifying methods
- ☐ representing ideas/concepts/patterns
- ☐ calculating with procedures

The questions and tasks we ask of students should provide us with clear insight into their development in these competencies.

The feedback we give to students in return should be meaningful in helping them position themselves in relation to their understanding of the mathematics.



What do we know about this student? In terms of knowing and doing mathematics what does this indicate?

What parts of the task was the student being unsuccessful? What understandings or skills does the student need to learn?

1.

a. What does the pattern of the data indicate about the connection between house prices and monthly payments?

the more expensive the house, the more the house costs each month

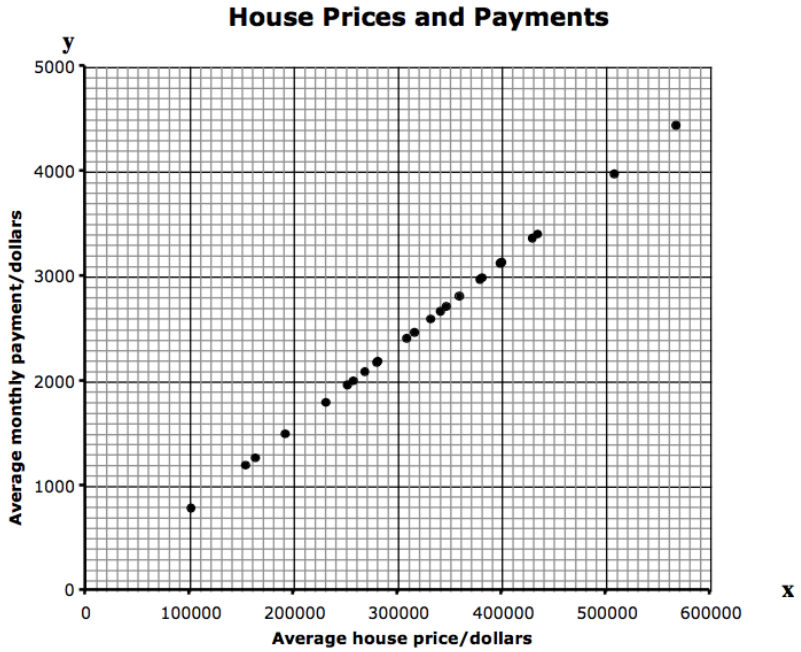
b. Find the monthly payment for a house costing $450 000. $3500

X	Y
100 000	800
400 000	3150
230 000	1800

c. Find a formula connecting the average monthly payment with the average house price.

$\frac{\text{house cost}}{127} = \text{monthly payment}$ $\frac{x}{127} = y$

$\frac{100000}{800} = 125$ $\frac{400100}{3150} \approx 128$ $\frac{230000}{1800} \approx 128$



What do we know about this student? In terms of knowing and doing mathematics what does this indicate?

What parts of the task was the student being unsuccessful? What understandings or skills does the student need to learn?

1.

a. What does the pattern of the data indicate about the connection between house prices and monthly payments?

It makes a straight line between house price and monthly payment

b. Find the monthly payment for a house costing $450 000.

cannot be sure — between 3 and 4 thousand

c. Find a formula connecting the average monthly payment with the average house price.

$100,000 house is $800 a month (on average)

Algebra Task 2 House Prices

Student Task	Work with graphs and formulas in a real context.
Core Idea 5 Data Analysis	**Select and use appropriate statistical methods to analyze data.** • Understand the relationship between two sets of data, display such data in a scatterplot, and describe trends and shape of the plot including correlations (positive, negative, and no) and lines of best fit. • Make inferences based on the data and evaluate the validity of conclusions drawn.
Core Idea 3 Algebraic Properties and Representations	**Represent and analyze mathematical situations and structures using algebraic symbols.** • Use symbolic expressions to represent relationships arising from various contexts. • Approximate and interpret rates of change, from graphic and numeric data.

Mathematic in this task:

- Understanding information on a scatterplot, looking for trends such as correlation or no correlation
- Recognizing that a linear function passing through the origin is a proportion and finding a formula for a proportion
- Reading and interpreting points on a graph
- Graphing inequalities

Based on teacher observations, this is what algebra students knew and were able to do:

- Read and locate points on a scatterplot to meet constraints of the context
- Recognize when there is no pattern in a scatterplot
- Describe a trend in a scatterplot

Areas of difficulty for algebra students:

- Finding a formula for a line on a graph
- Graphing an inequality on a graph from a verbal description

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Task 2: House Prices		Rubric
The core elements of performance required by this task are: • work with graphs and formulas in a real context Based on these, credit for specific aspects of performance should be assigned as follows	points	section points
1.a Gives correct explanation such as: There is a positive correlation between the two variables.	1	
b Gives correct answer in the range \$3400 and \$3800..	1	
c Gives correct answer such as: y = 0.008x (approximately) or y = x/125, where \$x is the house price and \$y is the monthly payment or equivalent Accept an intercept in the range 0 to 100.	1	3
2.a Gives correct explanation such as: No correlation or equivalent	1	
b Point A correctly indicated: (2500, 4450)	1	
c Point B correctly indicated: (2360, 800), or (3770, 1270)	1	
d Clear indication of correct region, above the line y = x	1	4
Total Points		**7**

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