STATION #1

1. A calf weighs 18 lbs when it is 2 months old, and 36 lbs after 8 months. Find the average rate of change of the calf's weight.

2. If $f(x) = 5x^2 - 8$, find the f(-3)+f(1).

3. Write the equation of the line:
(8, 10) and (-3,10).

4. Write the equation of a line parallel to $y = 2x + 3$ and goes through the point (10, 5).

STATION #2

1. Write an equation of the line that has an x-intercept of -3 and y-intercept of 5 in slope intercept form.

2. Convert $y - 4 = -\frac{1}{2}(x + 3)$ into standard form.

3. Write the equation of a line perpendicular to the line $y = -2x + 3$ with an x-intercept of 4.

4. What are the x- and y-intercepts of the line $2x + 4y = 8$?

STATION #3

1. If $f(x) = -x^2 + 6x$, find $f(-2)$.

2. Lauren compared the y-intercept of the graph of the function $f(x) = -2x + 10$ to the y-intercept of the graph of the linear function that includes the points from the table below. What is the difference when the y-intercept of f(x) is subtracted from the y-intercept of g(x)?

x	2	3	5	7
g(x)	24	29	39	49

3. Write the equation of the line: (6, 8) and (6,-6).

4. Sketch the graph of the equation $y = \frac{-2}{3}x + 2$.

STATION #4

1. Given the points (3,4) (2,0) (-3,4) (-2,0).

A. List the domain:

B. List the range:

C. Is this a function? Explain.

2. Write the equation of a line parallel to the line $x + 3y = 6$ and passes through the point (-1,2).

3. What is the slope of a line perpendicular to $5x + 3y = 15$?

4. Write the equation of a line parallel to the y-axis and goes through the point (10, 8).

5. Write the equation for the sequence:

4, 12, 20, 28,…

STATION #5

1. Do the given points determine a right triangle? Justify your response.

A(-3, 2) K(7, 0) H(5, 1)

2. Prove that the quadrilateral with the given vertices is a rectangle.

M(-5, -6) A(1, 4) T(6, 1) H(0, -9)

3. Given $y = 3x - 1$ and $y + 2 = 3(x - 5)$, determine if the two lines are parallel, perpendicular, or neither.

4. Write the equation of the line going through (-1, 5) with a slope of 2/3 in point-slope form.

STATION #6

Is there a relationship between fat grams and calories in food? Use the table to the left to answer the following questions:

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

1. What is the correlation value? (r) What does this mean?

2. Write the equation for the line of best fit.

3. What does the slope mean in context?

4. Find the residual for the Big Mac.

5. The Bacon Clubhouse burger at McDonald's has 720 calories. How many grams of fat should it have, according to your line of best fit?

STATION #7

Graph the following equations:

1. $y = -3x + 1$

2. $y = 6$

3. $x = -2$

4. $y - 2 = -3/5(x - 10)$

5. $3x - 6y = 12$