1 Calculating slopes from tables

Find the slope of the function from the ratio of the line differences.

	x	f(x)
1.	-2	-5
	-1	-1
	0	3
	1	7
	2	11

$$\begin{array}{c|cccc}
x & f(x) \\
-4 & 7 \\
-2 & 1 \\
-1 & -2 \\
\hline
2 & -11 \\
4 & -17
\end{array}$$

Change in y =

Change in y =

Change in $x = \underline{\hspace{1cm}}$

Change in $x = \underline{\hspace{1cm}}$

 $Slope = \underline{\hspace{1cm}}$

Slope = _____

Find the slope of the function. If the rate of change is not constant, write, "Non-linear. The rate of change is not constant."

1.	Δx	\boldsymbol{x}	f(x)	Δy
		-5	-3	
		-1	-1	
		0	1	
		2	3	
		5	5	

	Δx	x	$\int f(x)$	Δy
2.		-3	0	
		-1	2	
		0	3	
		2	5	
		5	8	

 $Slope = \underline{\hspace{1cm}}$

Slope = _____

2 Solving quadratics

1. Solve $x^2 + 7x + 12 = 0$ by factoring. Then check with the quadratic formula.

2. Solve $2x^2 + 9x + 7 = 0$ with the quadratic formula.

3. Solve $9x^2 + 8x - 1 = 0$ with the quadratic formula.

Algebra Review

Solve for x.

1.
$$2x + 9 = 5x - 6$$

$$5. \ \frac{x}{3} + 17 = 24$$

2.
$$4(x-3) = 6x + 18$$

6.
$$\frac{24}{x} + 9 = 15$$

3.
$$5 + 2(x+3) = -7$$

7.
$$\frac{1}{2}(x+5) = 7$$

4.
$$\frac{x}{8} = 5$$

$$8. \ \frac{3}{x}(2x+8) = 18$$

For early finishers:

1.
$$\frac{2}{3}(5x+8) = 12$$

$$3. \ 3 - \frac{2}{x}(2x + 18) = 17$$

2.
$$5 - \frac{2}{3}(7x + 4) = -7$$

4.
$$4 + \frac{4}{x}(-6x - 8) = 12$$