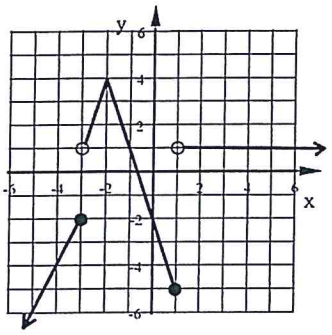
Bellwork Alg 2A Wednesday, October 26, 2016

1. Use this function $f(x) = \begin{cases} -7 & \text{if } x < -3 \\ 2x^2 - 5x & \text{if } -3 \le x < 2 \\ 5x - 8 & \text{if } x \ge 2 \end{cases}$

a. Find $f(-2)$ b. Find $f(13)$ c. Find $f(2)$

2. Use this graph.



a) Find f(-5)

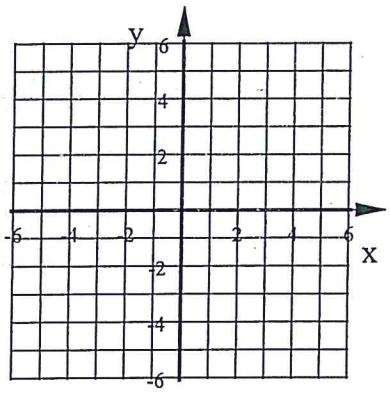
b) Find f(0)

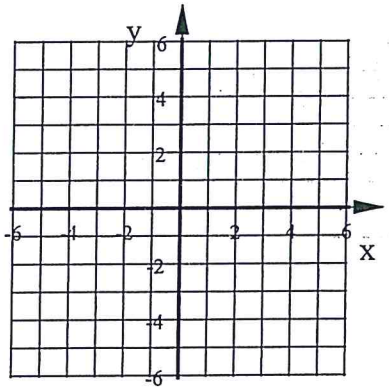
c) Find f(9)

For 3and 4, graph the given piecewise functions.

3. $g(x) = \begin{cases} -2|x+4|+6 & \text{if } x \le -2 \\ x+2 & \text{if } x > -2 \end{cases}$

4. $h(x) = \begin{cases} -5 & \text{if } x < -3 \\ 2x+1 & \text{if } -3 \le x < 2 \\ -3x+11 & \text{if } x \ge 2 \end{cases}$

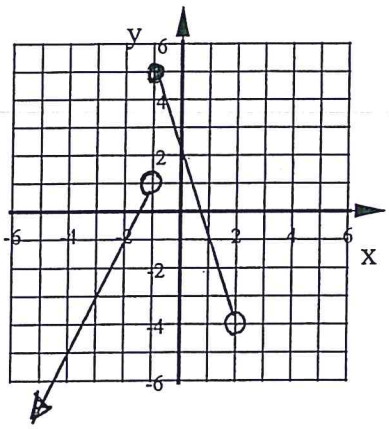




For 5 and 6, write the rule for each piecewise function.

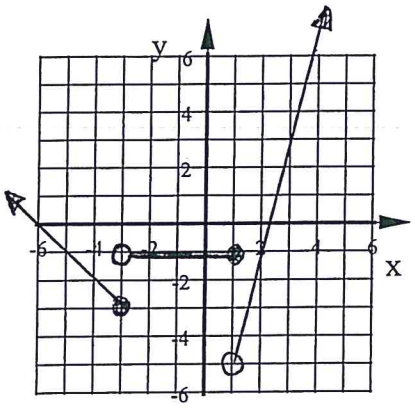
5.

$f(x) =$



6.

$f(x) =$



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Answers

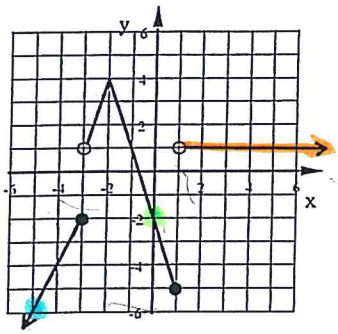
1. Use this function $f(x) = \begin{cases} -7 & \text{if } x < -3 \\ 2x^2 - 5x & \text{if } -3 \le x < 2 \\ 5x - 8 & \text{if } x \ge 2 \end{cases}$

a. Find $f(-2)$ $2(-2)^2 - 5(-2) = 18$

b. Find $f(13)$ $5(13) - 8 = 57$

c. Find $f(2)$ $= 2$

2. Use this graph.



a) Find f(-5) $= -6$

b) Find f(0) $= -2$

c) Find f(9) $= 1$

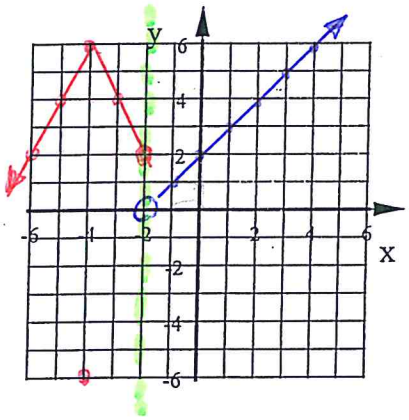
For 3and 4, graph the given piecewise functions.

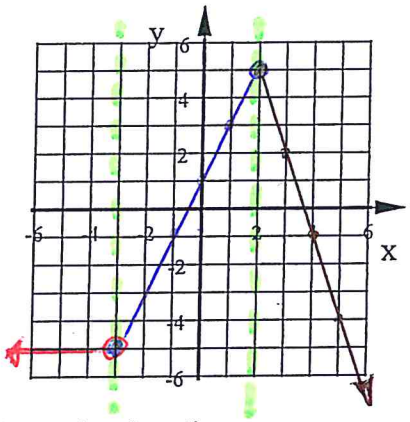
3. $g(x) = \begin{cases} -2|x+4|+6 & \text{if } x \le -2 \\ x+2 & \text{if } x > -2 \end{cases}$

4. $h(x) = \begin{cases} -5 & \text{if } x < -3 \\ 2x+1 & \text{if } -3 \le x < 2 \\ -3x+11 & \text{if } x \ge 2 \end{cases}$

x	y
2	5

plot this point then use the slope of $-3/1$





For 5 and 6, write the rule for each piecewise function.

5. $f(x) = \begin{cases} 2x+3 & \text{if } x < -1 \\ -3x+2 & \text{if } -1 \le x < 2 \end{cases}$

6. $f(x) = \begin{cases} -x-6 & \text{if } x \le -3 \\ -1 & \text{if } -3 < x \le 1 \\ 4x-9 & \text{if } x > 1 \end{cases}$