

## Classwork 2

College Algebra and Trigonometry, MTH 123, Section 3260, Fall 2011

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Name: SOLUTIONS

1.

$$f(x) = \begin{cases} x - 4 & \text{if } x \geq 4 \\ x + 1 & \text{if } -4 \leq x < 4 \\ x + 4 & \text{if } x < -4 \end{cases}$$

a. Evaluate  $f(5)$ ,  $f(-5)$ ,  $f(1)$ ,  $f(-2)$ .

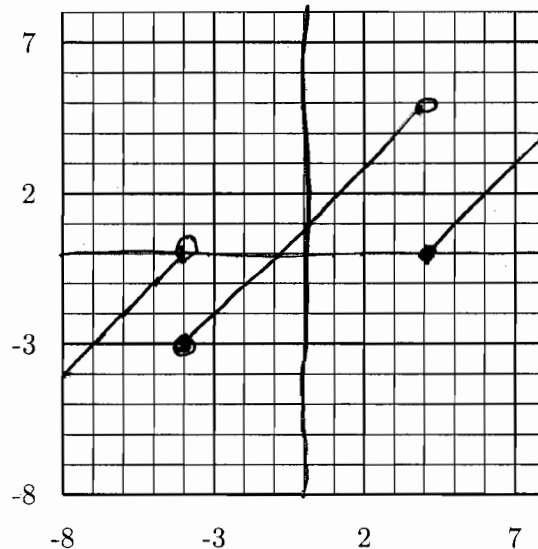
$$f(5) = 5 - 4 = 1$$

$$f(-5) = -5 + 4 = -1$$

$$f(1) = 1 + 1 = 2$$

$$f(-2) = -2 + 1 = -1$$

b. Sketch the graph of  $f(x)$ .



2. You place a frozen pie in an oven and bake it for an hour. Then you take it out and let it cool for an hour before eating it. Sketch the rough graph of the temperature of the pie as a function of time. Use 15 minutes intervals as a unit on the graph.

