Working with Absolute Value – worksheet

Rewrite the following functions as piecewise functions, using the definition to remove the absolute value bars. Then graph the function.

1) 
$$f(x) = |x| + 3x$$

$$f(x) = \frac{2x}{|x|}$$

2) 
$$f(x) = |4 - 3x|$$

3) 
$$f(x) = |x^2 - 4|$$

- 4) Graph  $f(x) = |x^2 4|$  by first graphing and "flipping up".
- 5) Given the graph of f(x), graph |f(x)|

