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- How do you write a function of an Absolute Value graph?

Recall the general form:  $f(x) = a|x-h| + k$

①  $a$  is the slope  $\frac{\text{Rise}}{\text{Run}}$

②  $(h, k)$  is the vertex point

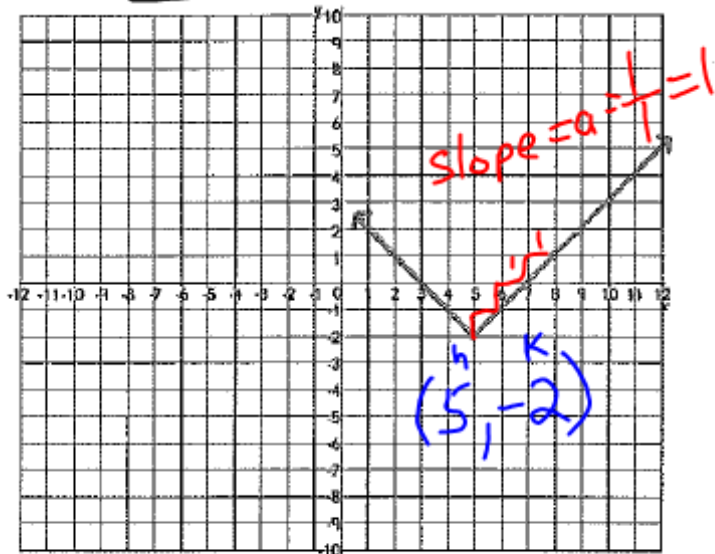
The next 6 examples will illustrate the process.

Target 2B. Understand the relationship between an equation and its graph.

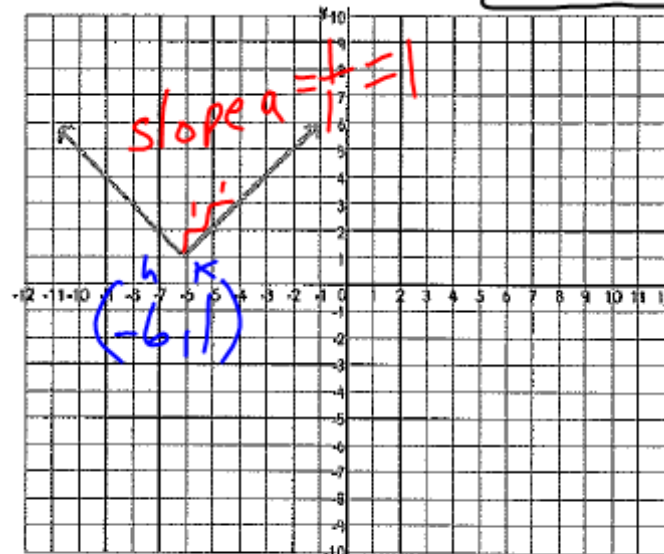
$$f(x) = a|x-h| + k$$

Write the equation of the absolute value graph. Then check to make sure your equation matches the graph.

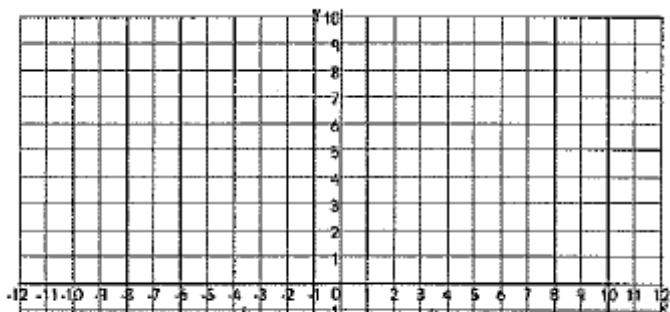
1.  $f(x) = 1|x-5|-2$



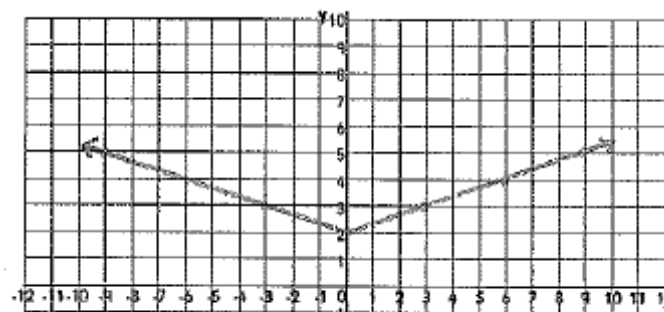
2.  $f(x) = 1|x-(-6)| + 1 = 1|x+6| + 1$



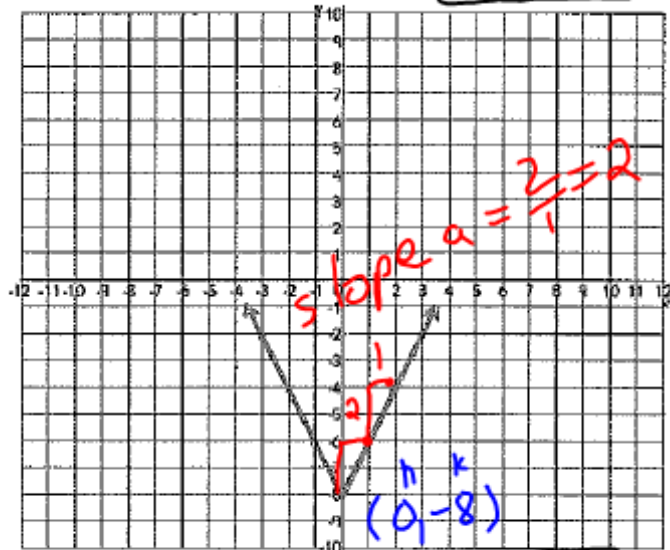
3.  $f(x) =$



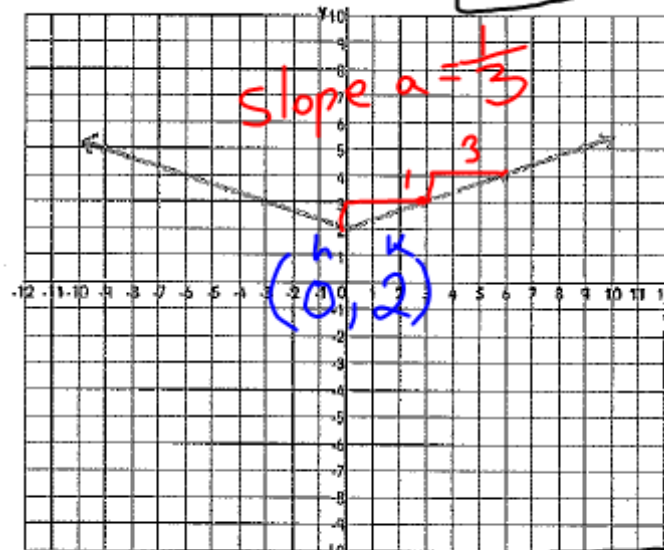
4.  $f(x) =$



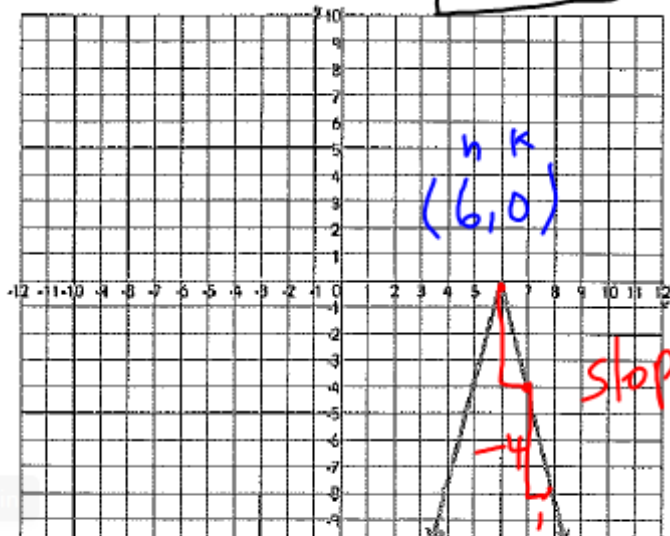
$$3. f(x) = 2|x-0| - 8 = 2|x| - 8$$



$$4. f(x) = \frac{1}{3}|x-0| + 2 = \frac{1}{3}|x| + 2$$



$$5. f(x) = -4|x-6| + 0 = -4|x-6|$$



$$6. f(x) = -\frac{1}{2}|x-(-6)| + 7 = -\frac{1}{2}|x+6| + 7$$

