

# Questions on Graphing Absolute Value Functions WKS?

-We will take our mini-test soon...

Solve for x. (You will have two answers.)

1.  $|x| = 7$

$x = -7$     $x = 7$

2.  $|x - 6| = 3$

$x - 6 = -3$     $x - 6 = 3$

3.  $|w + 4| = 11$

$w + 4 = -11$     $w + 4 = 11$   
 $w = -15$     $w = 7$

4.  $-9|m| = -63$

5.  $|3d| = 15$

6.  $|3x - 5| = 11$

7.  $-|m + 3| = -13$

8.  $|-4m| = 64$

9.  $2|x + 1| - 7 = -3$

10.  $5|c + 3| - 1 = 9$

11.  $-2|2p - 3| - 1 = -11$

12. Explain why the equation  $|m| = -3$  has no solution.

~~$2|2p - 3| = -10$~~   
 $\frac{-10}{-2} = \frac{2|2p - 3|}{-2}$

Set

Topic: Reading the domain and range from a graph

$|2p - 3| = 5$

$2p - 3 = -5$   
 $\frac{2p - 3}{+3} = \frac{-5}{+3}$

$\frac{2p}{2} = \frac{-2}{2}$   
 $p = -1$

$2p - 3 = 5$   
 $\frac{2p - 3}{+3} = \frac{5}{+3}$

$\frac{2p}{2} = \frac{8}{2}$   
 $p = 4$

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**Evaluate each expression for the given value of the variable.**

11.  $-s$ ;  $s = 4$       12.  $-t$ ;  $t = -7$       13.  $-x$ ;  $x = 0$       14.  $-w$ ;  $w = -11$

15.  $|v|$ ;  $v = -25$       16.  $-(a)$ ;  $a = -25$       17.  $-(-n)$ ;  $n = -2$

$| -25 | = 25$        $-(+ + 2) = -2$

18.  $| -(-p) |$ ;  $p = -6$       19.  $| -(-q) |$ ;  $q = 8$       20.  $-| -(-r) |$ ;  $r = -9$

$- | -(+ + 9) | =$   
 $- | -9 | = -9$

8.50 x 11.00 in

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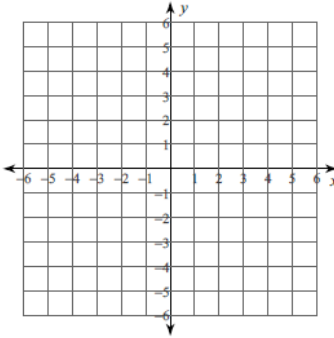
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1)  $y = |x| + 4$

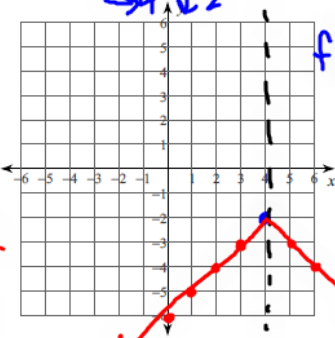


2)  $y = |x - 4| - 2$

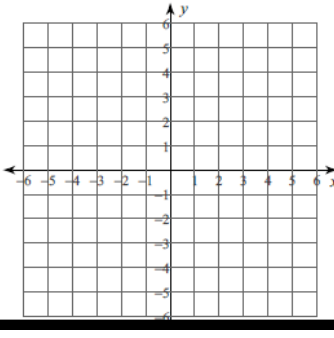
$x - 4 - 2$   
 $x - 6$

$-x + 4 - 2$   
 $-x + 2$

$f(x) = \begin{cases} -(-(x-4)) - 2, & x \leq 4 \\ -(x-4) - 2, & x > 4 \end{cases}$



3)  $y = -|x - 2| - 2$



4)  $y = |x + 2| - 4$

