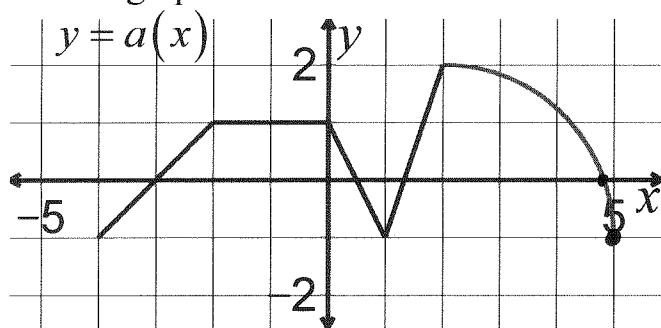


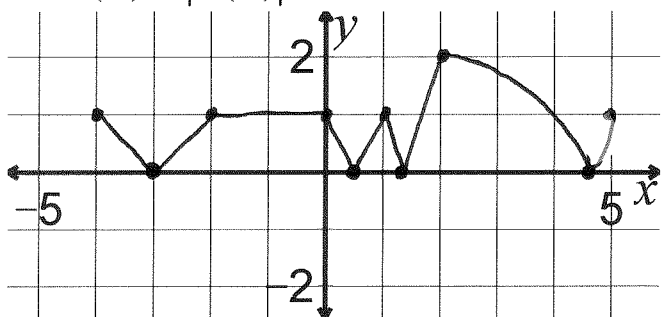
IB Math 1 5H Modulus Transformations

Use the graph of the function  $a$ .

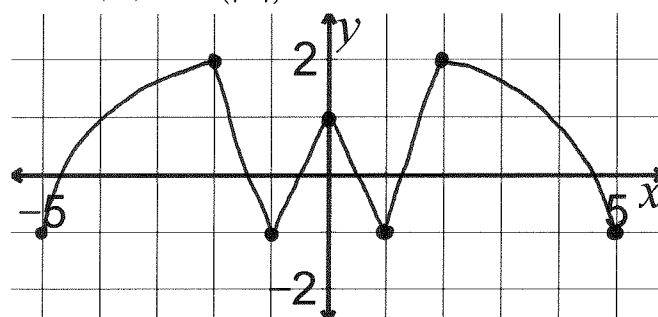


Sketch the graphs of the functions.

1.  $r(x) = |a(x)|$



2.  $t(x) = a(|x|)$



$x$	$a(x)$	$ a(x) $
-4	-1	1
-2	1	1
0	1	1
1	-1	1
2	2	2
5	-1	1

Points below x-axis  
get reflected across  
the x-axis.  
Points above x-axis  
stay where they started

$x$	$a( x )$
5	$a( 5 ) = a(5) = -1$
2	$a( 2 ) = a(2) = 2$
1	$a( 1 ) = a(1) = -1$
0	$a( 0 ) = a(0) = 1$
-1	$a( -1 ) = a(1) = -1$
-2	$a( -2 ) = a(2) = 2$
-5	$a( -5 ) = a(5) = -1$

Get rid of everything left of the y-axis.  
Keep the right side and  
reflect the right side across the y-axis.

HW

5H all

1st problem in each  
section of

Transformation Practice

due  
tomorrow

Whole worksheet due Monday