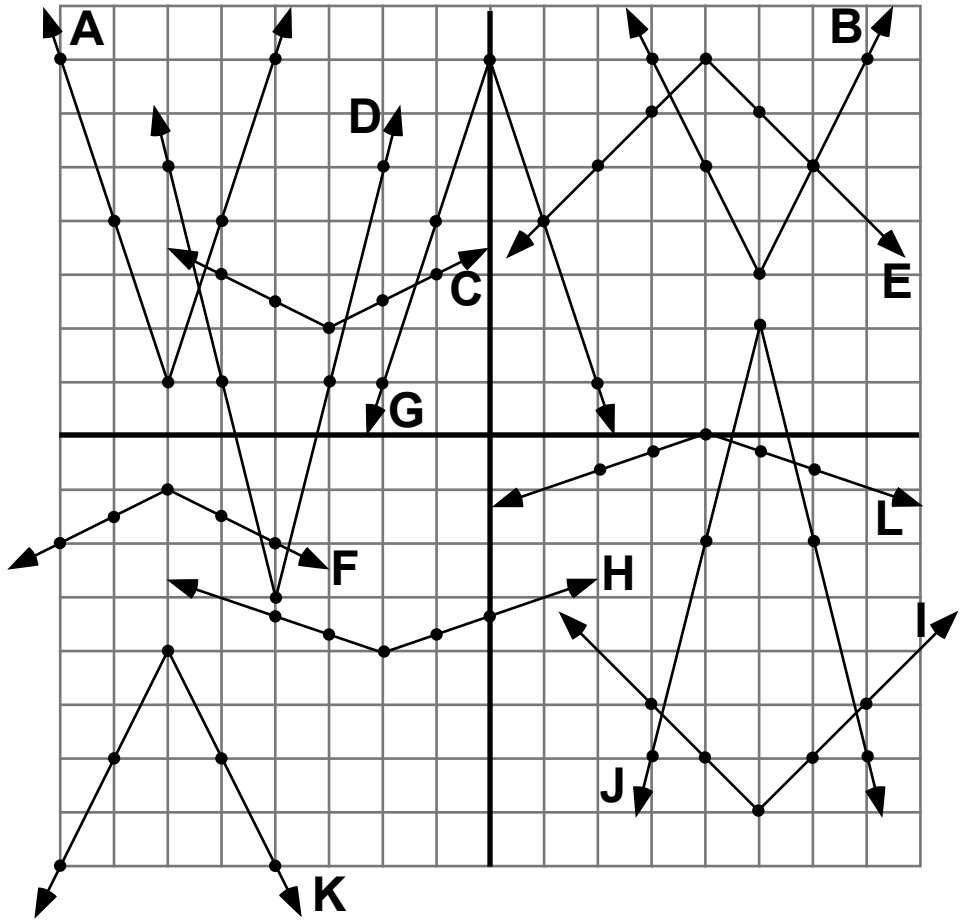
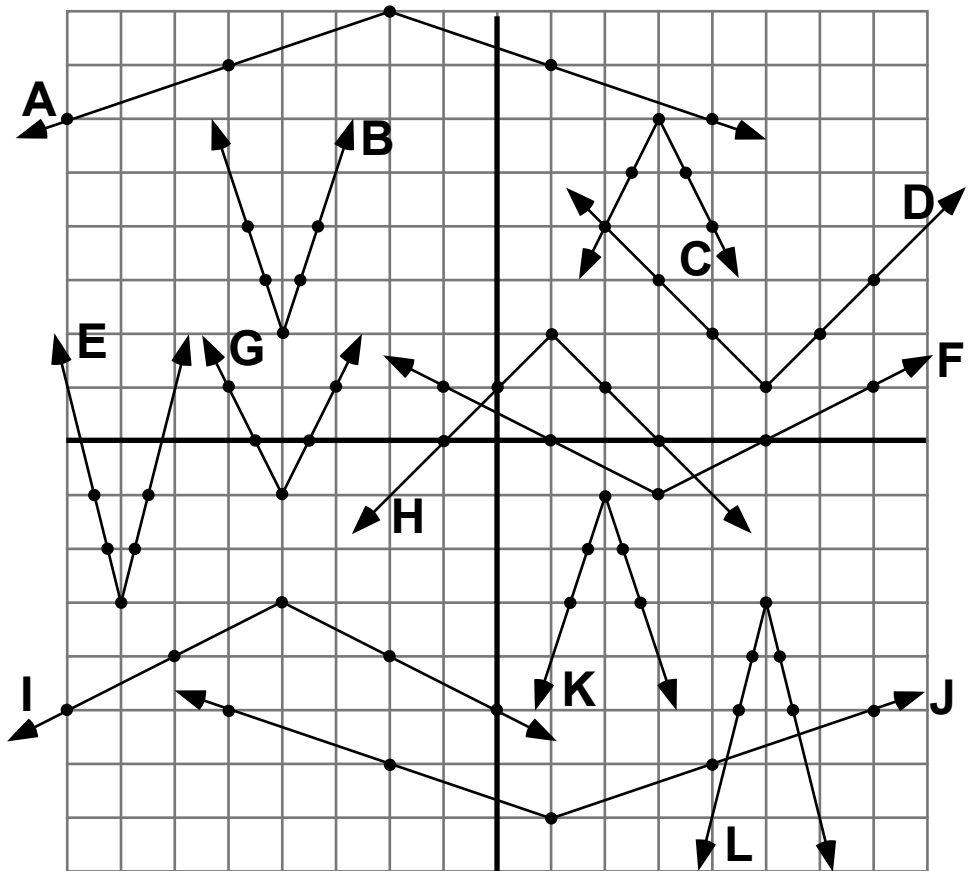


I. Find the correct equation for the given graphs. Assume that the graphs have been only vertically stretched/compressed in (a) and only horizontally stretched/compressed in (b).

- (a)
- A _____
 - B _____
 - C _____
 - D _____
 - E _____
 - F _____
 - G _____
 - H _____
 - I _____
 - J _____
 - K _____
 - L _____



- (b)
- A _____
 - B _____
 - C _____
 - D _____
 - E _____
 - F _____
 - G _____
 - H _____
 - I _____
 - J _____
 - K _____
 - L _____



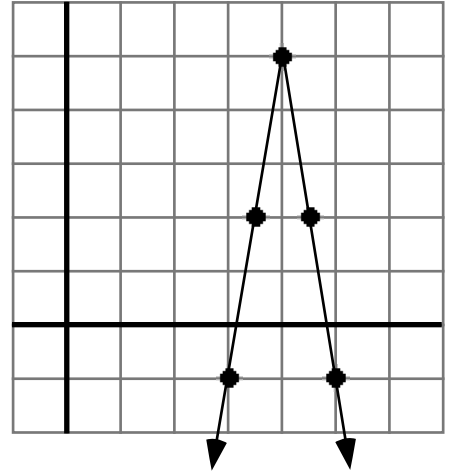
II. For each given equation, complete a table, graph, and state the transformations from $y = |x|$. Follow the example.

$y = |x|$

ΔX	x	y	Δy
+1	-2	2	-1
+1	-1	1	-1
+1	vertex 0	0	+1
+1	1	1	+1
+1	2	2	+1

$y = -3|2(x-4)| + 5$

ΔX	x	y	Δy
$+\frac{1}{2}$	3	-1	+3
$+\frac{1}{2}$	$3\frac{1}{2}$	2	+3
$+\frac{1}{2}$	vertex 4	5	-3
$+\frac{1}{2}$	$4\frac{1}{2}$	2	-3
$+\frac{1}{2}$	5	-1	-3



- reflected across the x-axis
- vertical shift 5 units up
- horizontal shift 4 units to the right
- vertical stretch by a factor of 3
- horizontal compression by a factor of 1/2

- (a) $y = 2|x+4| - 3$ (c) $y = -4\left|\frac{1}{3}(x-6)\right| + 2$
 (b) $y = \frac{1}{2}|x-1| + 5$ (d) $y = -2\left|\frac{1}{5}(x+7)\right| - 1$

III. Find the corresponding equation for each given list of transformations from $y = |x|$.

- (a) • reflected across the x-axis
 • vertical shift 4 units down
 • horizontal shift 3 units to the right
 • vertical stretch by a factor of 2

- (b) • vertical shift 2 units up
 • vertical stretch by a factor of 4
 • horizontal stretch by a factor of 3

- (c) • vertical shift 3.5 units down
 • horizontal shift 8 units to the left
 • vertical compression by a factor of 1/3
 • horizontal compression by a factor of 1/4

- (d) • reflected across the x-axis
 • vertical shift 3.6 units up
 • horizontal shift 12 units to the right
 • vertical stretch by a factor of 5
 • horizontal stretch by a factor of 4

IV. Complete the tables and then find the corresponding equation.

(a)

ΔX	x	y	Δy
$+\frac{1}{4}$			-5
$+\frac{1}{4}$			-5
$+\frac{1}{4}$	vertex -9	3	+5
$+\frac{1}{4}$			+5
$+\frac{1}{4}$			+5

(b)

ΔX	x	y	Δy
$+\frac{1}{2}$			$+\frac{1}{6}$
$+\frac{1}{2}$			$+\frac{1}{6}$
$+\frac{1}{2}$	vertex 5	-3	$-\frac{1}{6}$
$+\frac{1}{2}$			$-\frac{1}{6}$
$+\frac{1}{2}$			$-\frac{1}{6}$

(c)

ΔX	x	y	Δy
	-13	11	
	-10	7	
	vertex -7	3	
	-4	7	
	-1	11	