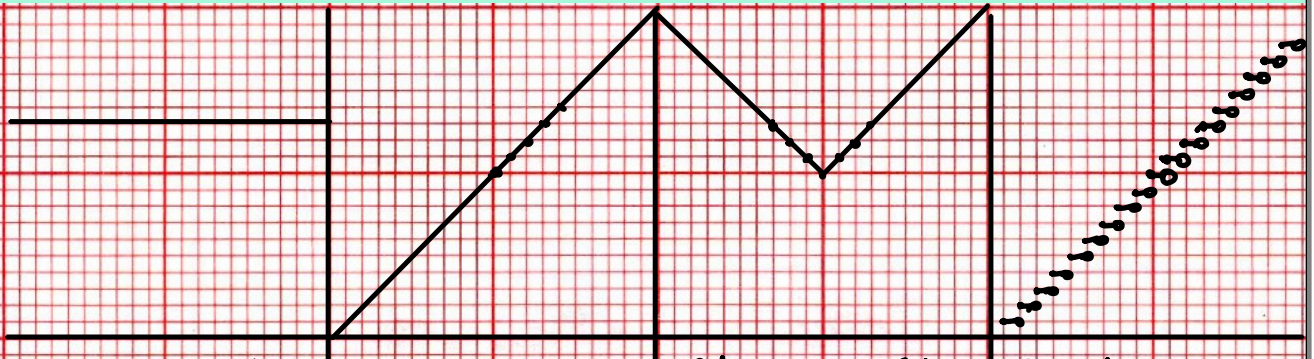


Graphing Special Linear Functions



Constant

$$f(x) = 3$$

$$y = 3$$

Identity

$$f(x) = x$$

$$y = x$$

0	0
-1	-1
2	2

Absolute Value

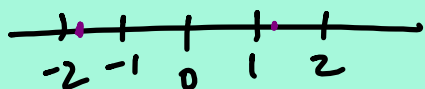
$$f(x) = |x|$$

0	0
-1	-1
2	2
-1	-1
-2	2

Greatest Integer

$$f(x) = [x]$$

0	0
0.1	0
0.5	0
0.99	0
-1	-1
1.2	1
1.7	1
1.99	1
2	2



$$[1.2] = 1$$

$$[5.9] = 5$$

$$[-1.8] = -2$$

$$f(x) = [2x + 1]$$

$$\begin{aligned} f(-1.6) &= [2(-1.6) + 1] \\ &= [-3.2 + 1] \\ &= [-2.2] \\ &= \boxed{-3} \end{aligned}$$

$$f(x) = 2[x] + 1$$

$$\begin{aligned} f(-1.6) &= 2[-1.6] + 1 \\ &= 2(-2) + 1 \\ &= -4 + 1 \\ &= -3 \end{aligned}$$

TRANSFORMATION RULES

$f(x) + c$	Move up c units	$ x + 71$
$f(x) - c$	Move down c units	$ x - 22$
$f(x+c)$	Moves left c units	$ x + 39 $
$f(x-c)$	Moves right c units	$ x - 12 $
$a f(x)$	Changes slope	$4 x $
$-f(x)$	Reflect over x -axis	$- x $
$f(-x)$	Reflect over y -axis	$ -x $

