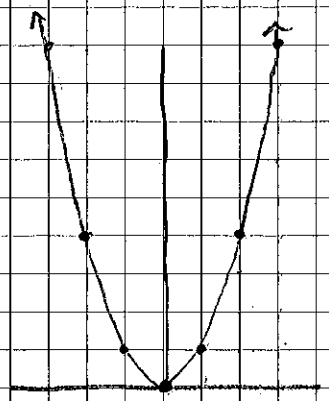
(16) A continuous graph can be a line, a ray, or a line segment. The graph shows a line segment so it is continuous. The points on the graph are not distinct.

(17) No. Because, if you plug the x value (2) into the function, you do NOT get a ½.

(18) $A = \frac{1}{2}L^2$

(0, 0)
(2, 2)
(4, 8)
(6, 18)



Continuous. Any number that is substituted for L makes sense.

(19) Remember $y = mx + b$! The 'b' represents the y-intercept, so by looking at the graph, you can determine the answer is either B or C.

Choose an x value and plug it into the function rule.

(B) $y = \frac{1}{2}(2) - 1$ That gives a coordinate of (2, 0)
$= 1 - 1$ Does that match the graph? Yes
$= 0$

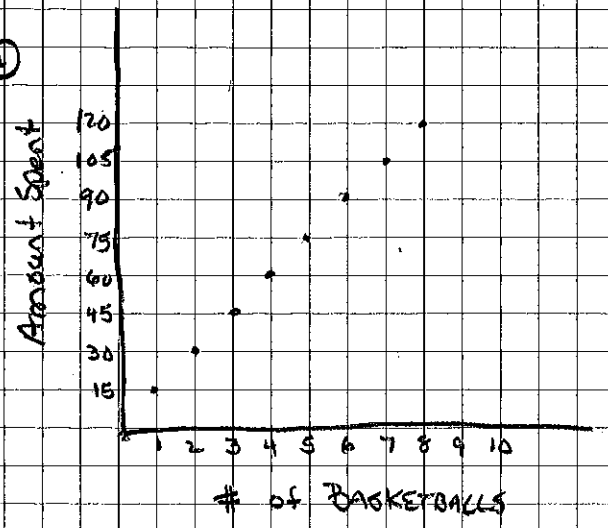
(C) $y = \frac{1}{2}|2| - 1$ (2, 0) yes
$y = 1 - 1$
$y = 0$

Choose a negative value

(B) $y = \frac{1}{2}(-2) - 1$ (C) $y = \frac{1}{2}|-2| - 1$ The Answer

(20) $a = 15b$

(a)



Discrete, you can't buy part of a basketball.

(b) 8

(22) $h = 100 - 16t^2$

t	h
0	100
1	84
2	36
3	-44

$h = 100 - 16(0^2)$
$h = 100$

$h = 100 - 16(2^2)$
$h = 100 - 64$
$h = 36$

$h = 100 - 16(1^2)$
$h = 100 - 16$
$h = 84$

$h = 100 - 16(3^2)$
$h = 100 - 144$
$h = -44$

Between 2 and 3 seconds.

(23)

$y = |x| + 1$

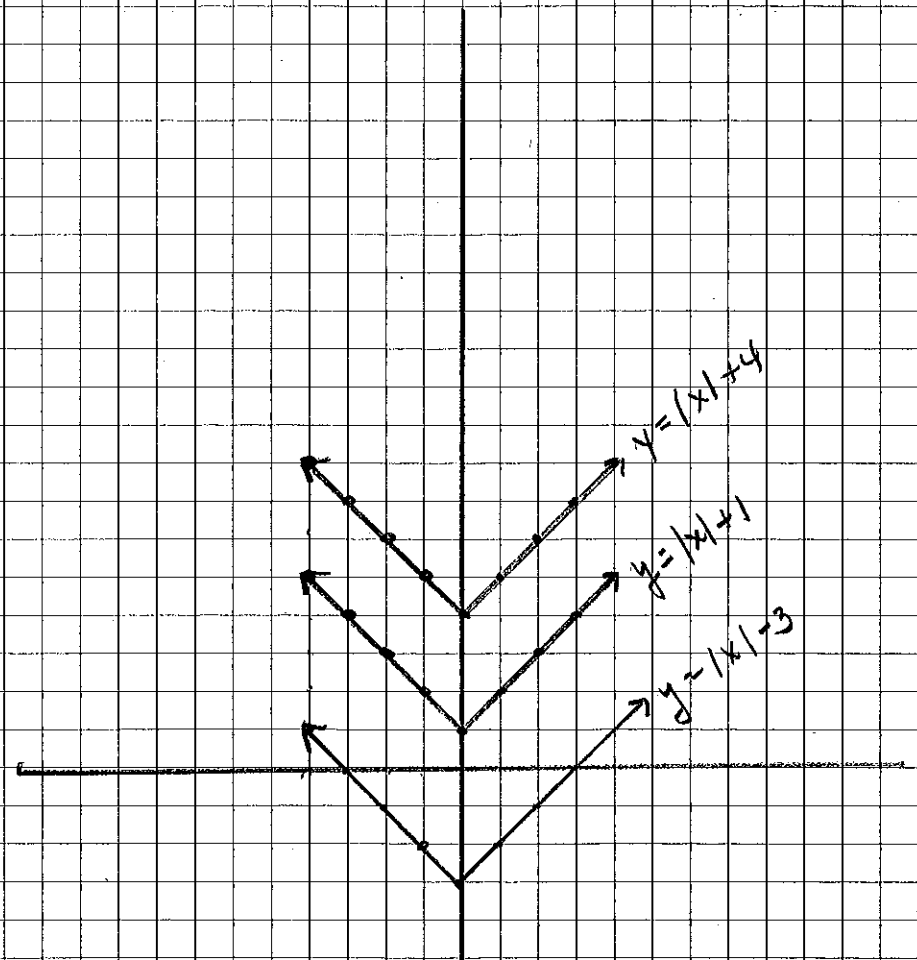
-4	5
-3	4
-2	3
-1	2
0	1
1	2
2	3
3	4
4	5

$y = |x| + 4$

-4	8
-3	7
-2	6
-1	5
0	4
1	5
2	6
3	7
4	8

$y = |x| - 3$

-4	1
-3	0
-2	-1
-1	-2
0	-3
1	-2
2	-1
3	0
4	1



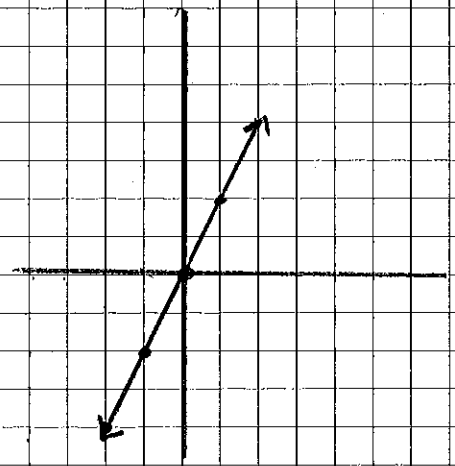
$y = |x| + K$

The graph moves above or below 0 K units.

(24)

$y = 2x$

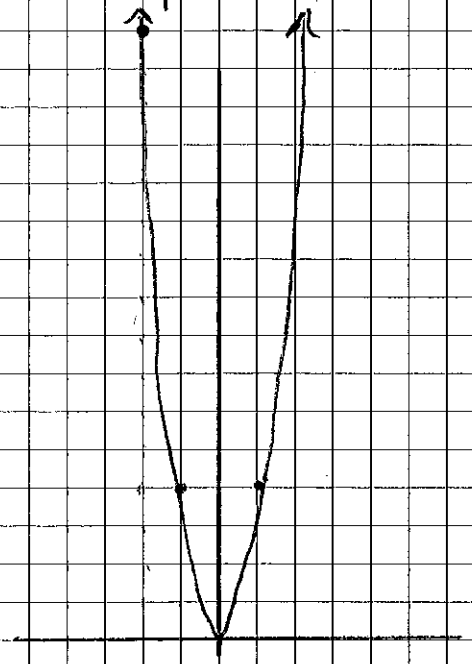
x	y
-4	-8
-2	-4
0	0
2	4
4	8



for $y = 2x$ double the value of x causes double the value of y

$y = 2x^2$

x	y
-4	32
-2	8
0	0
2	8
4	32



for $y = 2x^2$ double the value of x causes quadruple the value of y.