

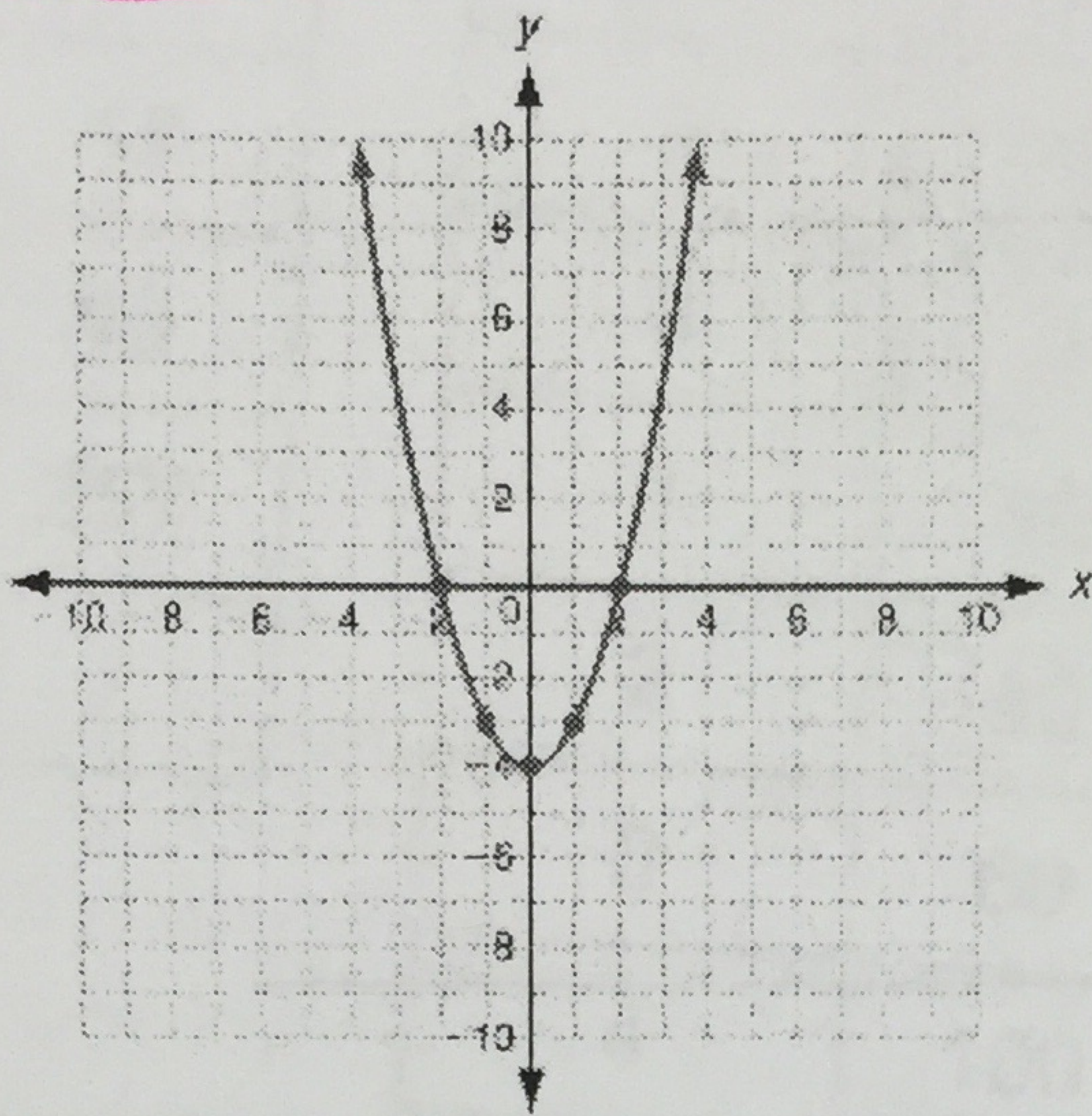
~~a. exponential~~
b. $y = 5(1.2)^x$

c. \$17.92

Practice B

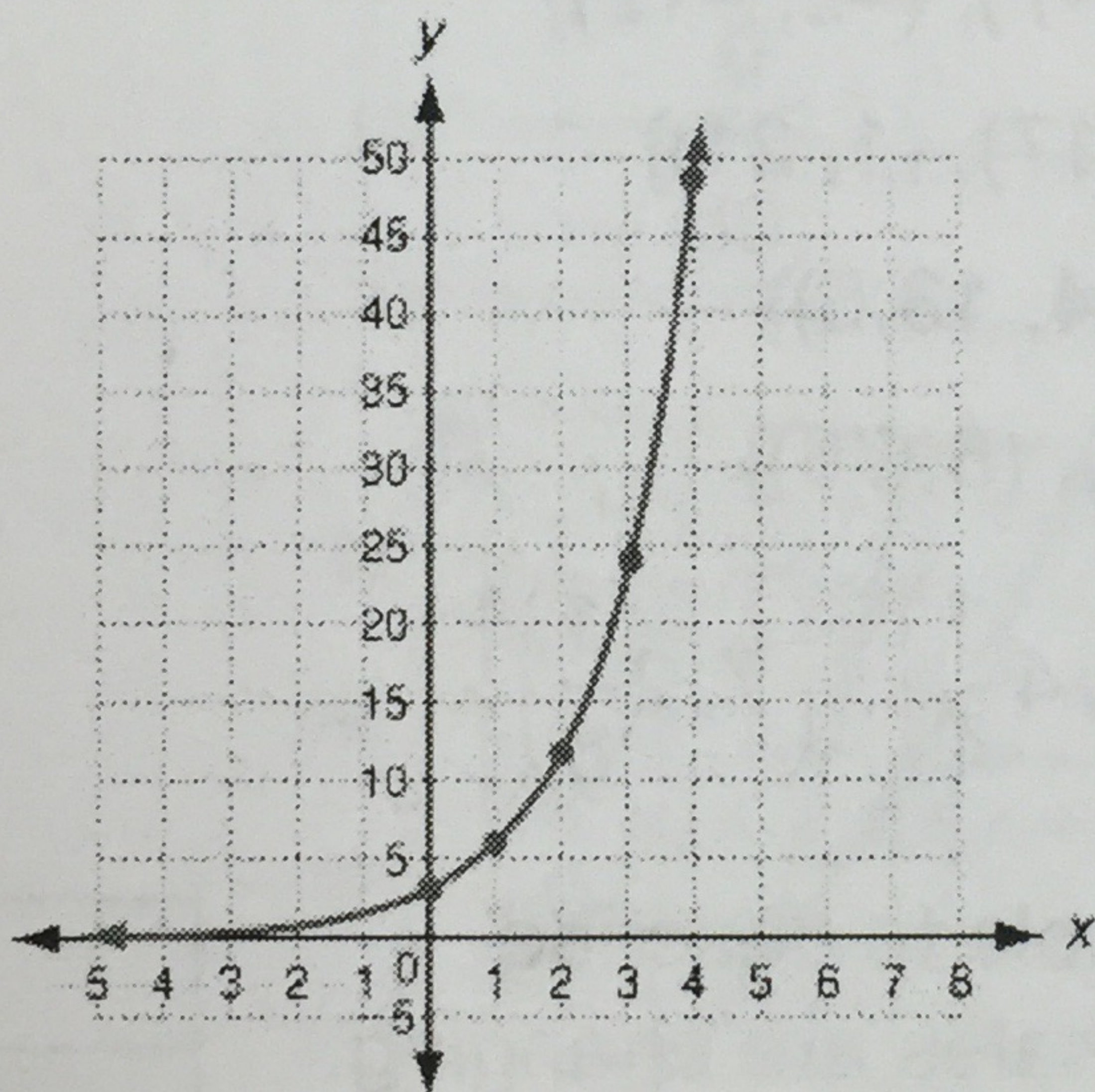
13.1

1.



quadratic

2.



exponential

3. quadratic

4. linear

5. exponential

6. quadratic

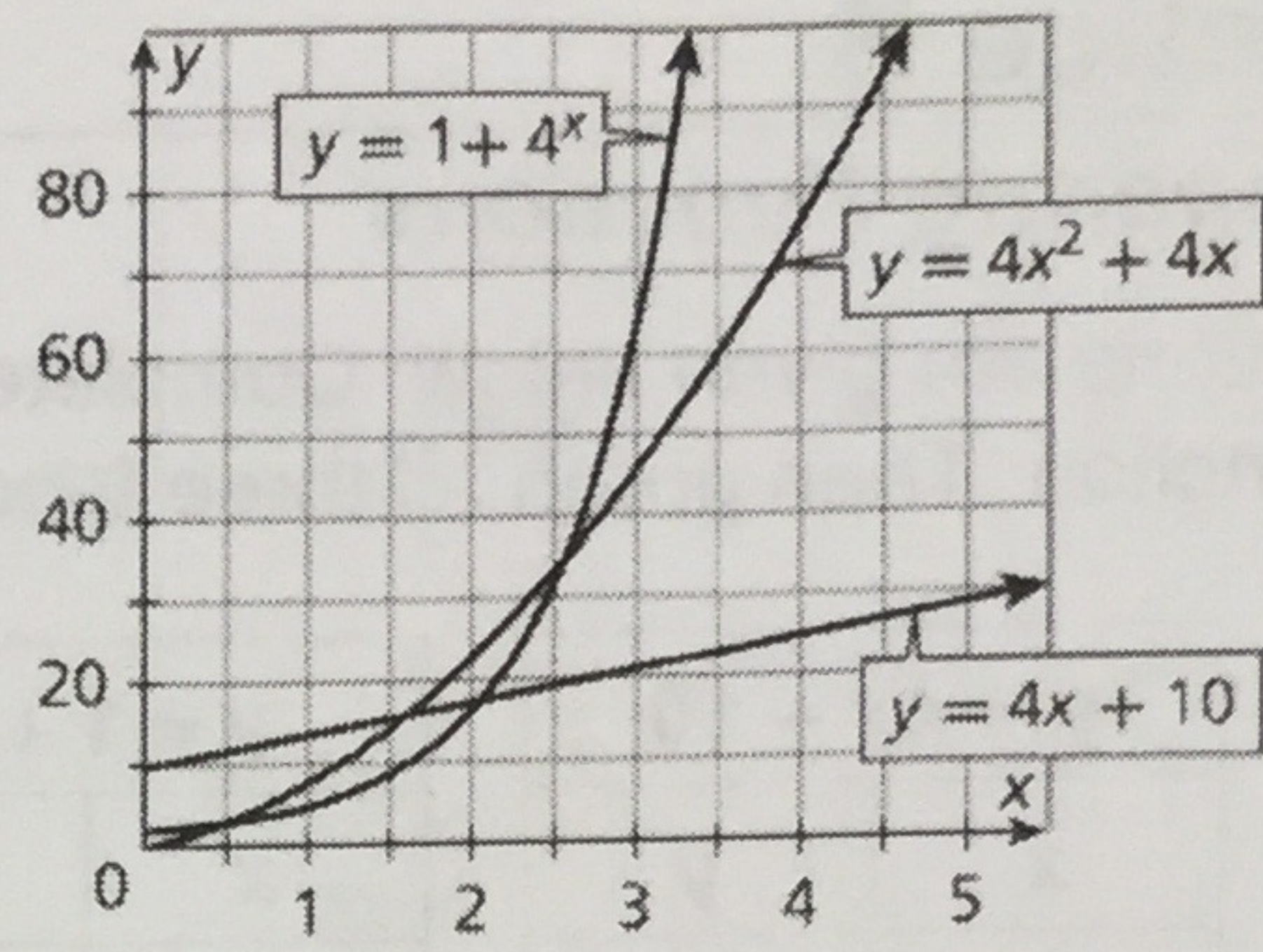
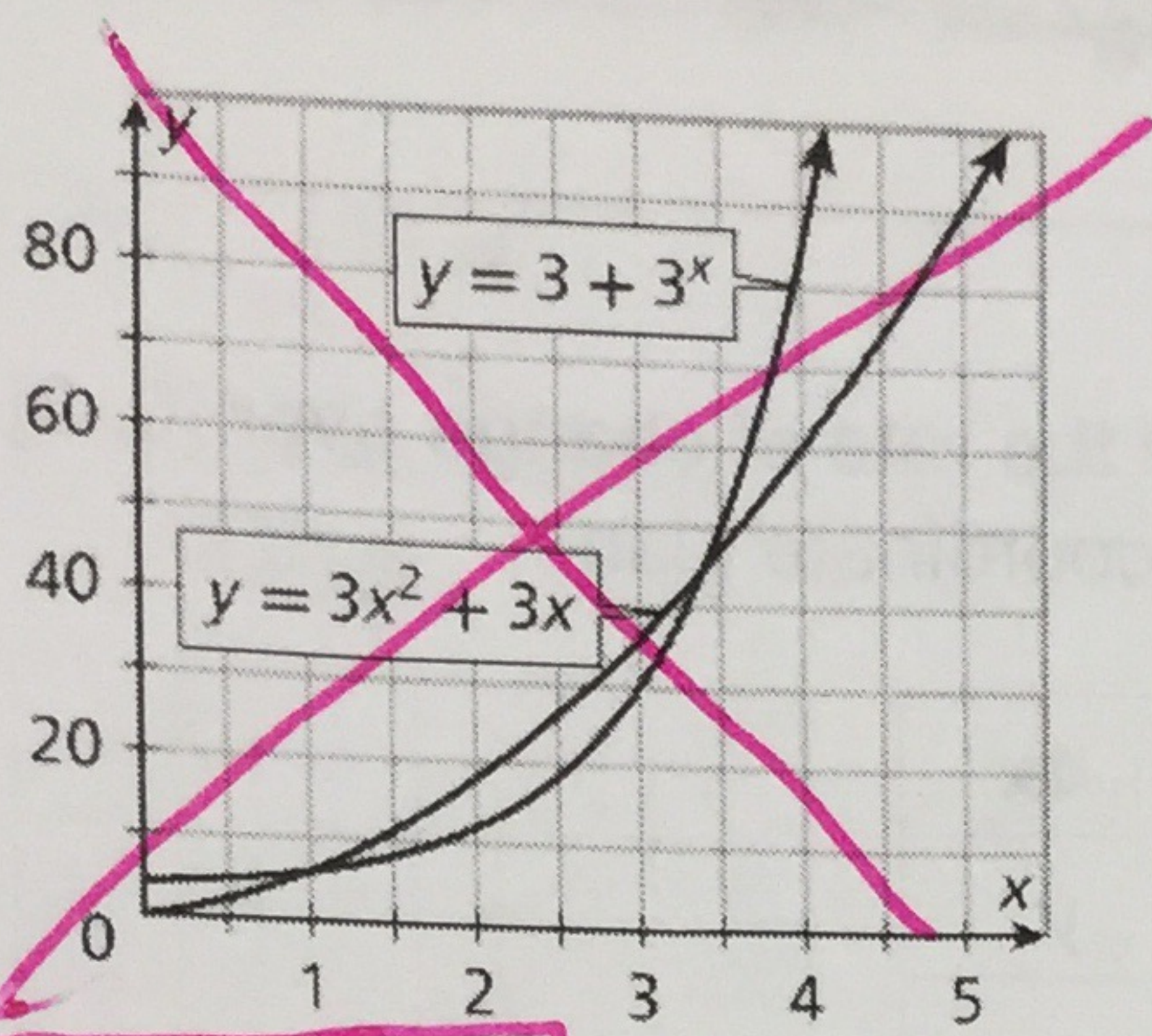
7. exponential

8. The sales decrease by 5% each month;

$$y = 20,000(0.95)^x; \approx \$13,268.41$$

9. The sales increase by \$750 every year;

$$y = 750x + 15,000; \$22,500$$



13.2

Practice B

1.

$y = 4x + 10$	
x	y
0	10
1	14
2	18
3	22
4	26
4	

$y = 1 + 4^x$	
x	y
0	2
1	5
2	17
3	65
4	257
21	

$y = 4x^2 + 4x$	
x	y
0	0
1	8
2	24
3	48
4	80
16	

- The linear function has the least rate of change and the exponential function has the greatest rate of change.
- The function with the greatest rate of change has the greatest difference between the y -values at $x = 0$ and $x = 3$.

2.

$y = 5x^2 + 5x$	
x	y
0	0
1	10
2	30
3	60
4	100
20	
0	
60	

$y = 5 + 5^x$	
x	y
0	6
1	10
2	30
3	130
4	630
$41\frac{1}{3}$	
6	
130	

