

AG pgs 16-18 / 1, 3-5, 10-13, 16-19, 23-29, 35, 42, 43

$$f(x) = a \cdot f(b(x-h)) + k$$

Key	

① Shrink by a factor of $\frac{1}{5}$

3. $g(x) = f(x - (-4))$

$$g(x) = (x+4) - 5$$

③ $g(x) = x - 1$

4. $g(x) = f(x \cdot 2)$

$$g(x) = (x-2) + 2$$

④ $g(x) = x$

5. $g(x) = f(x) - 2$

$$g(x) = |4x+3| + 2 - 2$$

⑤ $g(x) = |4x+3|$

10. $f(x) = 4000x$

⑩ $f(x) = 4,000x - 12,000$
7 weeks

11. $g(x) = -f(x)$

$$g(x) = -(-5x+2)$$

⑪ $g(x) = 5x - 2$

12. $g(x) = -f(x)$

$$g(x) = -(\frac{1}{2}x - 3)$$

⑫ $g(x) = -\frac{1}{2}x + 3$

13. $g(x) = f(-x)$

$$g(x) = |-6x| - 2$$

⑬ $g(x) = |6x| - 2$

16. $g(x) = f(-x)$

$$g(x) = -(-x) + 1$$

⑯ $g(x) = x + 1$

17. $g(x) = 5f(x)$

$$g(x) = 5(x+2)$$

⑰ $g(x) = 5x + 10$

18. $g(x) = \frac{1}{2}f(x)$

$$g(x) = \frac{1}{2}(2x+6)$$

⑱ $g(x) = x + 3$

19. $g(x) = f(2x)$

$$g(x) = |2(2x)| + 4$$

⑲ $g(x) = |4x| + 4$

⑳ C
shift left

㉑ A
vertical stretch

㉒ D
shift up

㉓ B
horizontal shrink

27. $g(x) = 2f(x) + 1$

㉔ $g(x) = 2x + 1$

28. $g(x) = \frac{1}{3}(f(x) - 3)$

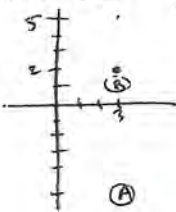
$$g(x) = \frac{1}{3}(x - 3)$$

㉕ $g(x) = \frac{1}{3}x - 1$

29. $g(x) = f(\frac{1}{2}x - 2)$

㉖ $g(x) = |\frac{1}{2}x - 2|$

35. NO*



$$f(x) = f(-x) + 3$$

① 2nd 1st
② 1st 2nd
③ 2nd 1st

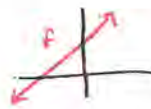
(3, -5)

(3, 1)

(3, 1)



42.



- a. sign of slope & x-int are switched
- b. slope & y-int are reduced by a factor of $\frac{1}{3}$
- c. slope is reduced by $\frac{1}{2}$ x-int is doubled.

* 43. $g(x) = -4|x| + 2$

order flip over x
vert stretch
shift up 2
new origin method
shift up 2
flip over y
vert stretch