

In Class Work: pg. 77 #2

2. Express regularity in repeated reasoning. Match each function with the corresponding transformation.

- | | |
|---|---------------------------------|
| * a. $y = a(f(x)), a > 1$ <u>D</u> | A Horizontal compression |
| * b. $y = a(f(x)), a < 1$ <u>E</u> | B Reflection over the x -axis |
| * c. $y = f(bx), b > 1$ <u>A</u> | C Vertical translation |
| * d. $y = f(bx), b < 1$ <u>F</u> | D Vertical stretch |
| e. $y = f(x - c)$ <u>H</u> | E Vertical compression |
| f. $y = f(x) + d$ <u>C</u> | F Horizontal stretch |
| g. $y = -f(x)$ <u>B</u> | G Reflection over the y -axis |
| h. $y = f(-x)$ <u>G</u> | H Horizontal translation |

~~*~~ Vertical
Something

~~*~~ Horizontal
Something

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In Class Work:

a) $f(x) = |4x|$

b) $f(x) = 2(4^x)$

c) $f(x) = 2(x - 3)^4$

d) $f(x) = -x^2$

e) $f(x) = \sqrt{x + 5}$

f) $f(x) = x^2 + 3$

g) $f(x) = (x+1)^2 - 4$

h) $f(x) = (x + 4)^3$

i) $f(x) = -|x|$

j) $f(x) = -\sqrt{x - 4}$

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In Class Work:

k) $f(x) = x^4$

p) $f(x) = |x| - 4$

l) $f(x) = -3\sqrt{x+2} - 1$

q) $f(x) = \sqrt{x+3} - 1$

m) $f(x) = (x-3)^2$

r) $f(x) = -2x^4 + 3$

n) $f(x) = -x^4$

s) $f(x) = 4^x - 3$

o) $f(x) = x^4 + 1$

t) $f(x) = -4^x + 3$

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In Class Work:

u) $f(x) = x^3$

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

v) $f(x) = -x^3$

aa) $f(x) = \sqrt{x-4} - 1$

w) $f(x) = x^3 - 4$

bb) $f(x) = x^2$

x) $f(x) = 4^{x+3}$

cc) $f(x) = 4^{x+2}$

y) $f(x) = -x^3 + 2$

dd) $f(x) = |x+3|$

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