Let $f(x) = x^3 - 2x$ and $g(x) = x + 2$. Then $f(g(x)) = (x+2)^3 - 2(x+2)$

(a) True, and I can explain why

(b) True, but I am unsure why

(c) False, and I can explain why

(d) False, but I am unsure why

(e) Ugh. . .

Let $f(x) = x^3 - 2x$ and $g(x) = x + 2$

Then the graph of $y = f(g(x))$ looks like the graph of $y = f(x)$ but shifted

(a) 2 units up

(b) 2 units down

(c) 2 units to the right

(d) 2 units to the left

(e) Ugh. . .

Let $f(x) = x^3 - 2x$ and $g(x) = x + 2$

Then the graph of $y = g(f(x))$ looks like the graph of $y = f(x)$ but shifted

(a) 2 units up

(b) 2 units down

(c) 2 units to the right

(d) 2 units to the left

(e) Ugh. . .

Let $f(x) = x^3 - 2x$ and $h(x) = 2x$

Then the graph of $y = h(f(x))$ looks like the graph of $y = f(x)$ but

(a) stretched vertically by a factor of 2

(b) compressed vertically by a factor of 2

(c) stretch horizontally by a factor of 2

(d) compressed horizontally by a factor of 2

(e) Ugh. . .

Let $f(x) = x^3 - 2x$ and $h(x) = 2x$

Then the graph of $y = f(h(x))$ looks like the graph of $y = f(x)$ but

(a) stretched vertically by a factor of 2

(b) compressed vertically by a factor of 2

(c) stretch horizontally by a factor of 2

(d) compressed horizontally by a factor of 2

(e) Ugh. . .

For any function $f(x)$,

- $y = f(x) + a$ looks like $y = f(x) \ldots$
- $y = f(x + a)$ looks like $y = f(x) \ldots$
- $y = af(x)$ looks like $y = f(x) \ldots$
- $y = f(ax)$ looks like $y = f(x) \ldots$

WeBWorK

- Go to course homepage and follow link to log in to WeBWorK

  Be sure to use upper case W00xxx

- If not on the campus network, will need to install Wheaton's vpn client

  Link to instructions on course webpage

- Let me know if you have any problems!

Reminders

- If haven't done so yet, fill out Background Questionnaire (link at onCourse)
- PCA due tonight
- See you tomorrow morning at 10:30!