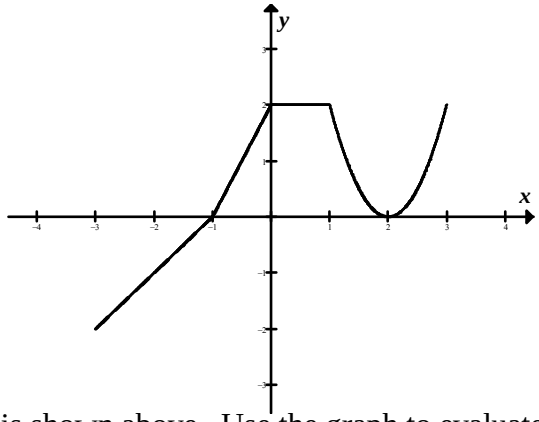
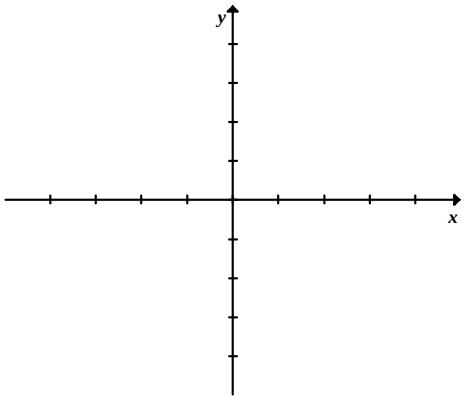
UB SAT 2009
Homework #14
Translating/Transforming Functions
Due: Mon, Apr 6



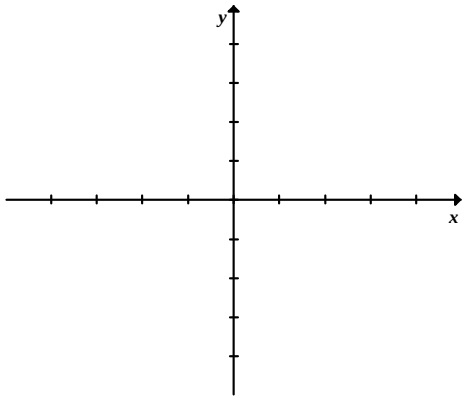
The graph of $y = f(x)$ is shown above. Use the graph to evaluate the following:

1) $f(-1) =$ 2) $f(0) =$ 3) $f(1) =$ 4) $f(2) =$

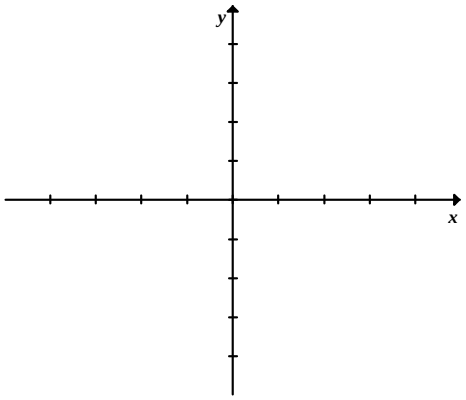
5) Draw the graph of $y = f(x-3)$



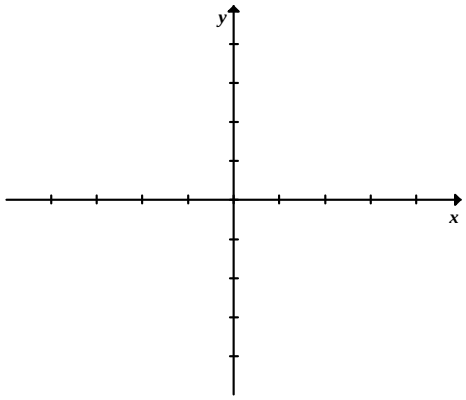
6) Draw the graph of $y = f(x+1)$



7) Draw the graph of $y = f(x)+2$



8) Draw the graph of $y = f(x)-1$



Review for Quiz #2

Factor completely.

1. $2x^3 - 6x^2$
2. $a^2xy^3 - ax^2y^2$
3. $x^2 - 5x - 14$
4. $x^2 - 11x + 28$
5. $3x^2 + 7x - 6$
6. $4x^3 + 16x^2 - 48x$

Simplify completely.

7. $\dfrac{6x^2 - 14x - 12}{2x^2 - 11x + 15}$
8. $\dfrac{2x^2 - 72}{2x^2 + 15x + 18}$

Given $f(x) = 2x - 1$ and $g(x) = x^3 - 3x,$ evaluate the following.

9. $f(-3)$
10. $g(2)$
11. $g(f(0))$
12. $f(f(1))$
13. $f(g(f(1)))$

Graph the following functions.

14. $y = 2x - 1$
15. $f(x) = -\dfrac{2}{3}x + 3$
16. $2x - 3y = 6$
17. $2y - x = 4$
18. $g(x) = x^2 - 3x - 4$
19. $y = 2x^2 - 8$
20. $f(x) = 3x^2 - 5x + 12$