Math 12 TRANSLATION QUIZ Name: ANSWERS
Date: _____

1. How is the graph of $y=f(x)+3$ related to the graph of $y=f(x)$?

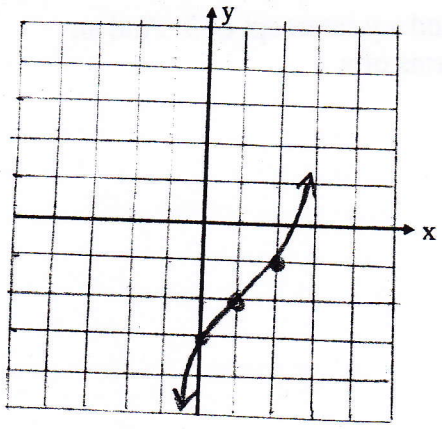
(A.) $y=f(x)$ has been translated 3 units up.
B. $y=f(x)$ has been translated 3 units down.
C. $y=f(x)$ has been translated 3 units to the left.
D. $y=f(x)$ has been translated 3 units to the right.

2. If the function $y = f(x + 2) - 7$ is translated 7 units to the right, the new equation will be:

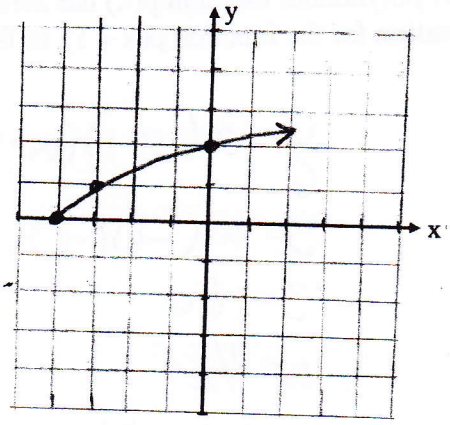
A. $y = f(x + 9) - 7$
(B.) $y = f(x - 5) - 7$
C. $y = f(x + 2)$
D. $y = f(x + 2) - 14$

3. Accurately draw the graphs for the following functions:

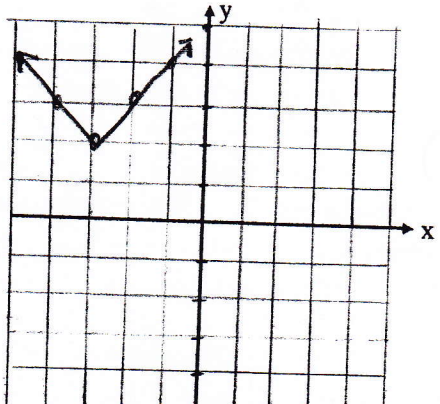
a) $y = (x-1)^3 - 2$



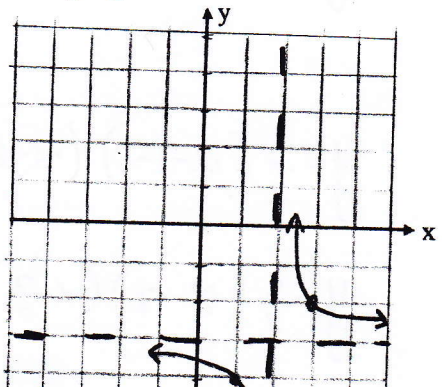
b) $y = \sqrt{x+4}$



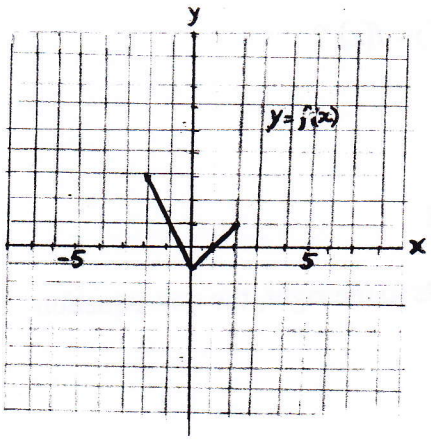
c) $y = |x+3|+2$

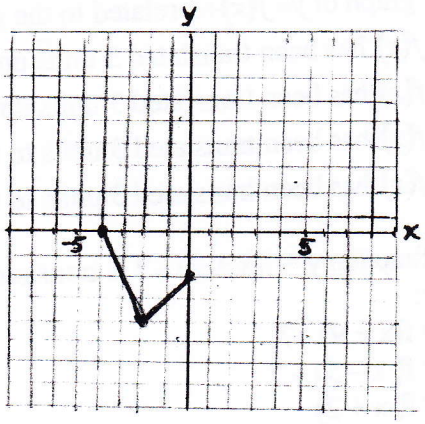


d) $y = \frac{1}{x-2} - 3$



4. The graph of f(x) is shown below.
On the grid provided, sketch the graph of y = f(x + 2) – 3.





5. A polynomial function p(x) has zeros at 1, 2, and -3 and a y-intercept of 3. Find an equation for the function p(x – 1), in factored form in terms of x.

$y = a(x-1)(x-2)(x+3)$

$3 = a(-1)(-2)(3)$

$3 = 6a$

$a = 1/2$

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

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

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