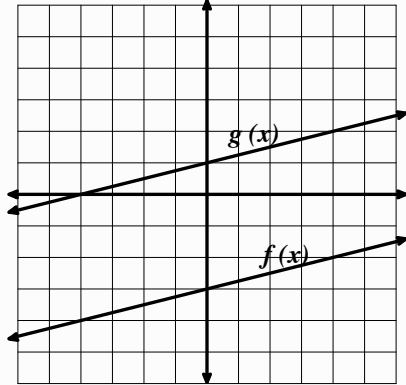


Based on the given graph, write the equation of $g(x)$ in the translation form of $g(x) = f(x) + k$. Then simplify the equation of $g(x)$ into slope-intercept form. The equations of $f(x)$ is given.

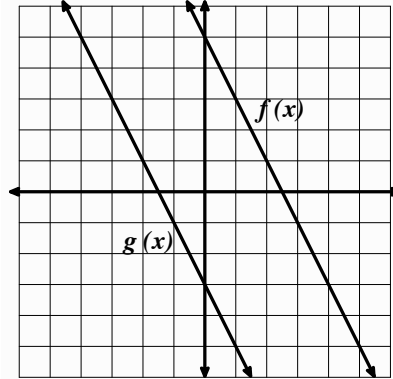
1. $f(x) = \frac{1}{4}x - 3$



a. translation form
 $g(x) =$

b. slope-intercept form
 $g(x) =$

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



a. translation form
 $g(x) =$

b. slope-intercept form
 $g(x) =$

The equation $g(x)$ is written as a linear or exponential function. Write $g(x)$ in the translation form of $g(x) = f(x) + k$ for each problem.

3. $f(x) = 7x + 13$
 $g(x) = 7x - 5$

$g(x) =$ _____
 Translation Form

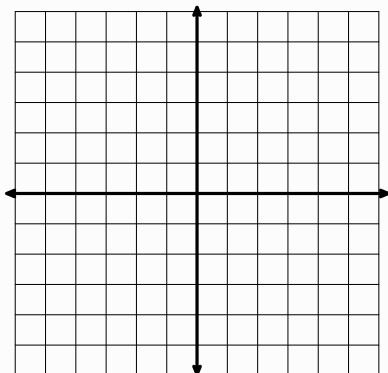
4. $f(x) = 3^x \cdot 5$
 $g(x) = 3^x \cdot 5 - 4$

$g(x) =$ _____
 Translation Form

5. Looking at the functions $f(x)$ and $g(x)$ for problem #3, how would $f(x)$ and $g(x)$ compare if they were both graphed on the same coordinate grid?

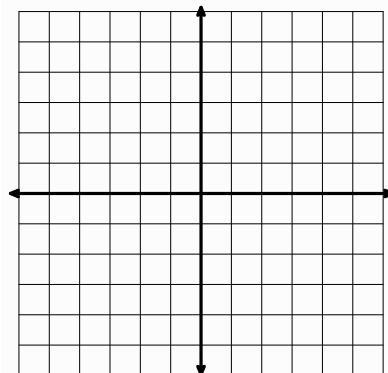
You have been given the equations of $f(x)$ and the transformation $g(x) = f(x) + k$. Graph both $f(x)$ and $g(x)$ on the grid provided. Then write the explicit equation for $g(x)$ in the space provided.

6. $f(x) = 2x - 4$; $g(x) = f(x) + 3$



$g(x) =$ _____

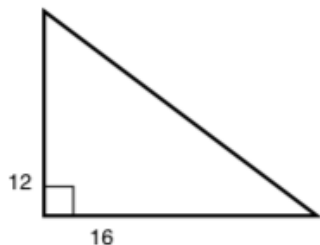
7. $f(x) = 2^x \cdot 3$; $g(x) = f(x) - 1$



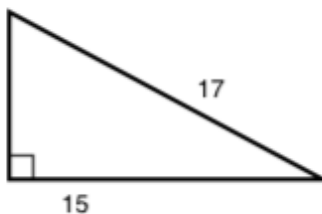
$g(x) =$ _____

Review: Pythagorean Theorem

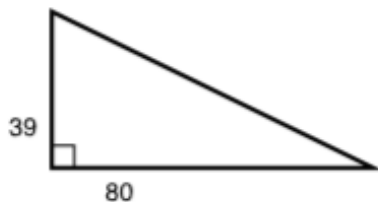
Find the length of the missing side using the Pythagorean Theorem: $a^2 + b^2 = c^2$
 -adapted from mathaids.com



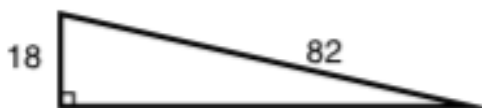
8) _____



9) _____



10) _____



11) _____