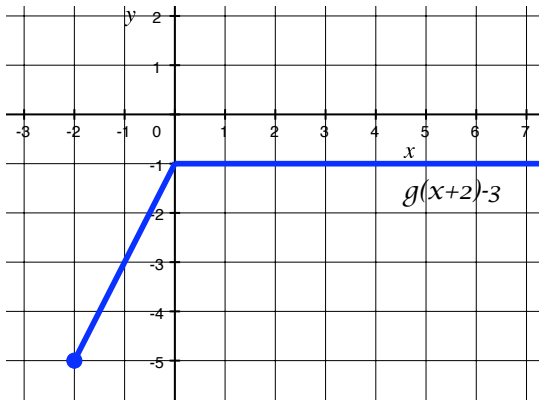


Math 111 Quiz #6 Answers

1. Domain: $x > -\frac{1}{2}$ or $(-\frac{1}{2}, \infty)$ (Need $2x + 1 > 0$ for the logarithm to be defined.)
2. (a) Domain: $6 \leq x \leq 9$ (To obtain $2f(x - 5)$: Shift $f(x)$ right by 5 units, vertically stretch by 2)
(b) Domain: $-3 \leq x \leq -1$ (To obtain $f(-x) - 3$: Reflect $f(x)$ over the y -axis, Shift down by 3 units)
3. Neither. (Consider $h(-x)$. You will find that it does not equal $h(x)$ nor does it equal $-h(x)$.)
4. (a) Transformations of $g(x)$: Shift left by 2, shift down 3 units



- (b) Transformations of $g(x)$: Reflect over the x -axis, vertically compress by a factor of $\frac{1}{2}$, shift up 2 units

