

Here are some problems to try so that you know that you are up to speed for the first quiz.

1. If $f(x)$ is an even function and $g(x)$ is an odd function, show that $h(x) = f(x + g(x))$ is also an even function.
2. Determine whether the function $f(x) = \tan(\sin(\pi + x))$ is even, odd or neither.
3. Find all x satisfying the inequality

$$\frac{x+2}{x-3} \leq \frac{3x-2}{x+3}.$$

4. Find the remainder upon dividing $x^3 + 2x^2 - 3x + 4$ by $x^2 - 2x + 1$.