If x is an even integer and y is an odd integer, then $x + y$ is an odd integer.

If x is an even integer and y is any other integer, then xy is an even integer.

For all integers x and y, if xy is even then either x is even or y is even.

If x and y are odd integers, then $x + y$ is an even integer.

For every integer n (positive, negative, or zero), if n is an odd integer then n^3 is an odd integer.

For every integer n (positive, negative, or zero), if n is a multiple of 4 then $n^2 - 1$ is a multiple of 4.

For all real numbers a and b, if $a \neq 0$ and $b \neq 0$ then $ab \neq 0$.