

Math 215 – Fall 2017

Practice Homework 5 – Assigned September 25th, due September 28th

Note: Remember that you must show your work to get full credit for a problem.

1. Prove that the sum of two even numbers is even.
2. Prove that the sum of two odd numbers is even.
3. What can you say about the sum of an even and an odd number? Prove it!
4. What can you say about the product of an even and odd number? Prove it!
5. What can you say about the product of two even numbers? Prove it!
6. What can you say about the product of two odd numbers? Prove it!
7. Let a, b and c be integers. Show that $11|(a - b + c)$ if and only if $11|(100a + 10b + c)$.