

# Proof For Week 10

Due on Thursday, November 15<sup>th</sup>

Consider the following true sentence:

*In this sentence there are exactly 1 0's, 2 1's, 3 2's, and 2 3's.*

Notice how there is 1 zero, 2 ones, 3 twos, and 2 threes that appear in the sentence.

Replace the question marks with integers to make the following sentence correct:

In this sentence there are exactly ? 0's, ? 1's, ? 2's, ? 3's, ? 4's, ? 5's, ? 6's, ? 7's, ? 8's, and ? 9's.

*As usual, this weekly "proof" will be marked out of two. To get full marks, you must not only fill in the questions marks correctly, but also explain how you arrived at your answer.*