Quiz 1

True/False - No explanation needed. (For each: 1 point if correct, 0 points if not answered, -1 points if incorrect)

- 1. To find how many natural numbers between 1 and n are divisible by d we calculate the fraction $\frac{n}{d}$ and round up in order not to miss any numbers. True/False
- 2. $A \times B \times C$. for some sets A, B, and C is another set made of all possible triplets (x, y, z) where x, y, and z are any elements of any of the three sets. True/False

Problems - Need justification.

1. How many positive integers less than or equal to 100 are odd or perfect squares? (5 points)

2. A child is building a stack of blocks marked by digits and a blank block. How many different towers of four blocks can they build if they use 3 digit blocks and the blank block. For the digit blocks, assume there are 10; each is marked by exactly one of the 10 digits. (5 points)