

Quiz 6: Sets and probability

MAT 123, SUMMER 2016

NAME:

1. (10 points) Define the sets $A = \{3, 6, 9\}$, $B = \{2, 4, 6, 8, 10\}$, and $C = \{1, 2\}$. In this problem all of these sets are considered subsets of the universal set $\mathcal{U} = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$. Find the following sets.

(a) $A \cup C$

(b) $A \cap C$

(c) B'

2. (10 points) Suppose that you draw one ball from an urn containing 6 white balls, 4 red balls, and 2 green balls.
- (a) What is the probability that you draw a green ball?

- (b) What is the probability that you draw a white ball?