Quiz #1
Tuesday, 23 June.

Available on Blackboard from 12:01 a.m. on Tuesday, 23 June.
Due on Blackboard by 11:59 p.m. on Tuesday, 23 June.
Solutions will be posted on Thursday, 25 June.

Scans of photos of handwritten work are entirely acceptable so long as they are legible and in some common format; solutions submitted as a single pdf are preferred, if you can manage it. If you can't submit your solutions via Blackboard's Assignments module for some reason, please email them to the instructor at: `sbilaniuk@trentu.ca`

Consider the following experiment. A box contains six marbles: one purple marble, two identical green marbles, and three identical yellow marbles. One marble is drawn at random from the box, after which a second marble is drawn at random from the box. The first marble drawn is *not* put back in the box before the second marble is drawn. In each draw every marble then in the box has as good a chance of being drawn as any other.

1. What is an appropriate sample space for this experiment? *[1]*

2. What is an appropriate probability distribution function for this experiment? *[2]*

3. Let A be the event that the two marbles drawn were of different colours. Compute the probability $P(A)$ of the event A. *[2]*