

# Exercise sheet 5

Probability and Statistics, MTH102

1. Let  $X$  denote the random variable which is the number of times a coin lands on heads if it is tossed  $n$  times. Show that  $P\{X = k + 1\} = \frac{p}{1-p} \frac{n-k}{k+1} P\{X = k\}$