

Name:

# MATH 321: In-Class 0

1. Let  $X$  have the following pmf:

$x$	0	1	2	3
$f(x)$	0.3	0.15	0.24	0.31

(a) Find  $P(X < 2)$ .

(b) Find  $E(X)$ .

(c) Find  $V(X)$ .

(d) Find  $E[(X + 3)(X - 1)]$

2. Let  $X$  have the following pdf:  $f(x) = cx^2$ , for  $0 < x < 1$ .

(a) Find  $c$  so that  $f(x)$  is a valid pdf.

(b) Find  $P(0.25 < X < 0.55)$ .

(c) Find  $E(X^2 + \sqrt{X})$ .