

DISCRETE RANDOM VARIABLES

1a) $1 - 0.2 - 0.3 - 0.25 = \underline{\underline{0.25}}$

b) 2 or 3
 $0.3 + 0.25 = \underline{\underline{0.55}}$

c)

x	0	1	2	3
$F(x)$	0.2	0.45	0.75	1

2a)

x	1	2	3	4	5	6
$P(X=x)$	$\frac{1}{36}$	$\frac{3}{36}$	$\frac{5}{36}$	$\frac{7}{36}$	$\frac{9}{36}$	$\frac{11}{36}$

b) 2 or 3

$$\frac{3}{36} + \frac{5}{36} = \frac{8}{36} = \frac{2}{9}$$

c)

x	1	2	3	4	5	6
$F(x)$	$\frac{1}{36}$	$\frac{4}{36}$	$\frac{9}{36}$	$\frac{16}{36}$	$\frac{25}{36}$	1

3a)

y	1	2	3	4	5	6
$P(Y=y)$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

b) uniform

4) $e = 1$
 $b = 1 - 0.78 = \underline{\underline{0.22}}$

$c = 0.2$

$a = 1 - 0.2 - 0.3 - 0.22 = \underline{\underline{0.28}}$

$d = 0.2 + 0.28 = \underline{\underline{0.48}}$