

Question #122**Key: C**

$$E[N] = mq = 1.8 \Rightarrow q = \frac{1.8}{3} = 0.6$$

x	$f_N(x)$	$F_N(x)$
0	0.064	0.064
1	0.288	0.352
2	0.432	0.784
3	0.216	1.000

First: $0.432 < 0.7 < 0.784$ so $N = 2$.

Second: $0.064 < 0.1 < 0.352$ so $N = 1$

Third: $0.432 < 0.5 < 0.784$ so $N = 2$

Use 0.1 and 0.3 for amounts

Use 0.9 for amount

Use 0.5 and 0.7 for amounts

Discrete uniform $\Rightarrow F_X(x) = 0.2x$, $x = 1, 2, 3, 4, 5$

$$0.4 < 0.5 < 0.6 \Rightarrow x_1 = 3$$

$$0.6 < 0.7 < 0.8 \Rightarrow x_2 = 4$$

Aggregate claims = $3+4 = 7$