

Binomial $\mu = np$ $\sigma = \sqrt{npq}$
 Given 10 opportunities what is the probability of 3 successes with a probability of 60%?
 $n = 10$ $p = .60$ $X = 3$
 Binompdf (10, .6, 3)

Feb 17-9:12 AM

Geometric $\mu = \frac{1}{p}$ $\sigma = \sqrt{\frac{q}{p^2}}$
 What is the probability that the 1st person to walk in my class today with Black Boots on is my 27th student with a probability of 24%?
 Geometpdf (.24, 27)

Feb 17-11:07 AM

Poisson
MUST give the mean
 What is the probability that at least 4 accidents occur in a month with an average of 10?

Feb 17-11:10 AM

1. .080	7. .251
2. .45	8. .042
3. .062	9.
4. .028	10
5. .175	
6. .089	

Feb 17-11:14 AM

15a) .082 $p = .19$
 b) .469
 c) .53
 1-Geomcdf (.19, 3)
 15) geometricpdf
 a) $x = 5$ $p = .19$
 b) $x = 0$
 $x = 1 = .19$
 $x = 2 = .1599$
 $+ x = 3 = .125$
.469

Feb 17-11:19 AM

16) $\mu = 2$
 $p(x) = 5$
 a) Poissonpdf (2, 5)
.036
 unusual < .05
 b) at least 5
 1 - Poisson (2, 4)
.053
 c) more than 5 \rightarrow at least 6
 1 - Poissoncdf (2, 5)
.017 unusual

Feb 17-11:24 AM

17. a) .195 $\mu = 4$
 b) .433 \rightarrow poissoncdf(4,3)
 c) .566 \rightarrow at least 4
 $1 - \text{poissoncdf}(4,3)$

18 a) $\boxed{.228}$ \leftarrow binompdf(.648,2)
 b) $\boxed{.876}$ \leftarrow geometpdf(.648,1) + (.648,2)
 c) $\boxed{.124}$ \leftarrow 1 - Geometcdf(.648,2)
 $X \geq 3$

Feb 17-11:28 AM

19 a) .329 poissonpdf(.6,1)
 b) .878 poissoncdf(.6,1)
 c) .122 $1 - \text{poissoncdf}(.6,1)$
 at least 2
 $\mu = .6$

Feb 17-11:32 AM

20 a) $\mu = 9.5$
 $P(X=10)$
 a) $\text{poissonpdf}(9.5, 10) = .124$
 b) $\text{poissoncdf}(9.5, 10) = .645$
 c) $1 - \text{poissoncdf}(9.5, 10) = .355$

Feb 17-11:35 AM

21 a) $\mu = 8$
 $P(X=8)$
 a) $\text{poissonpdf}(8, 8) = .140$
 b) $\text{poissoncdf}(8, 8) = .042$
 c) $1 - \text{poissoncdf}(8, 12) = \boxed{.064}$

Feb 17-11:37 AM

24 $\mu = 45$
 $X = 50$
 a) $\text{poissonpdf}(45, 50) = .043$
 b) $1 - \text{poissoncdf}(45, 64) = .003$
 c) $\text{poissoncdf}(45, 40) = .256$

Feb 17-11:42 AM