I. Finds the probability that the first time something happens is on the $3^{\text {rd }}$ trial
2. Is used to calculate probabilities about waiting times $\qquad$
3. Finds the probability of obtaining 4 successes in 7 trials $\qquad$
4. Has an expected value equal to lambda $\qquad$
5. Finds the probability of choosing $x$ objects of type $X$ and $y$ objects of type $Y$ $\qquad$
6. Calculates probabilities of the number of trials until something happens $\qquad$
7. The graph displays scores of 200 high school students on a writing test. Does the graph have a positive or negative skew?

Answer: $\qquad$ (Source: UCLA High School \& Beyond, 2000)
8. Math scores on the test follow an approximate normal distribution with a mean of 52.6 and a standard deviation of 9.37 . Suppose one student earns a score of 70 on this test. Show the formula you would use to convert $\mathrm{X}=70$ into a Z-score for this distribution.


Answer: $\qquad$

Write the probability distribution described by each statement: Binomial, Exponential, Geometric, Hypergeometric, Negative Binomial, Poisson
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