CALCUPROB
An on-line interactive calculator of probabilities

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CalcuProb is an interactive open access on-line calculator for calculating critical values and probabilities from the most common probability distribution models (binomial, Poisson, normal, $\chi^2$ -chi-squared-, t and F). It has been designed and programmed using the standard algorithms for these models and compiled into a Java applet, embedded in a web page. It is a very useful didactic tool for lectures, as well as for the development of projects and academic activities. It makes unnecessary the use of statistical tables and it can be loaded in the computer screen along with other applications and programs, consuming minimum resources, since it has been designed in the form of a Java applet.

The intended users of CalcuProb are students of quantitative courses in the degrees of Economics, Business Administration, Finance and Accounting, as well as any other who require finding probabilities and critical values of the most common distribution models of random variables.

CalcuProb can be accessed via the following link:

http://webpersonal.uma.es/~afdez/calcuprobe/
CALCUPROB: DESCRIPTION AND USE

CalcuProb is an interactive calculator of probabilities that obtains critical values and probabilities from the most common probability distributions.

CalcuProb has a deliberate simple design in order to allow an easy use.

1- Selection of the probability model. Available probability models in CalcuProb are:
   Binomial
   Poisson
   Normal
t  chi squared
      F

2- Calculating a probability.
   2.1- Enter the model's parameter/s value/s.
   2.2- Enter two values (a and b) of the variable that contain the desired probability.
       |Left| a  |Between| b  |Right|
   2.3- Clicking [Left] the value of $P(X\leq a)$ will be shown
       Clicking [Between] the value of $P(a < X \leq b)$ will be shown
       Clicking [Right] the value of $P(X > b)$ will be shown

3- Calculating a critical value.
   3.1- Enter the model's parameter/s value/s.
   3.2- Enter the probability ($p$) that the unknown critical value leaves to the right of the distribution (right tail), to the left of the distribution (left tail), or to both sides (two tails).
   3.3- Clicking [Left tail] the value $a$, such as $P(X < a) = p$, will be shown
       Clicking [Right tail] the value $b$, such as $P(X > b) = p$, will be shown
       Clicking [Two tails] the values of $a$ and $b$, such as $P(X < a) = p/2$ y $P(X > b) = p/2$ will be shown

Examples:
   1  2  3

Send a comment or suggestion
3. Example: Finding a probability

Binomial  Probability  Value

No. of trials (n)= 10  Prob. of success (p)= 0.4

Left  2  Between  4  Right

Result= 0.465814

CalcuProb is an interactive calculator of probabilities that obtains critical values and probabilities from the most common probability distributions.

Help
4. Examples: Finding critical values

Examples: Finding critical values

Mean = 0.0
St. Dev. = 1.0

Tail prob. = 0.05
Left tail
Two tails
Right tail

Result = -1.959964 1.959964

CalculeProb is an interactive calculator of probabilities that obtains critical values and probabilities from the most common probability distributions.
Chi squared  

deg. of freedom = 12

tail prob. = 0.10  
result = 18.549348

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