Chapter 11 / **Example 14**

Calculating binomial probabilities

A courier delivers packages each day of the week.
The probability that the courier delivers the packages by 9.00 am is 0.7.
Construct a probability distribution table for the week and write an expression for the probability that on seven days they deliver the packages before 9.00 am on five occasions.

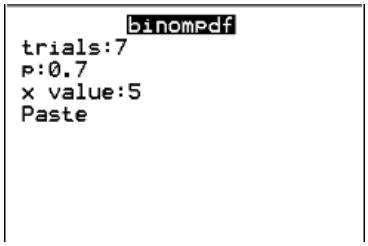
Assuming $X \sim \mathrm{B}(7, 0.7)$

To find $\mathrm{P}(X = 5)$

Press 2nd vars ([distr]) A:binompdf…

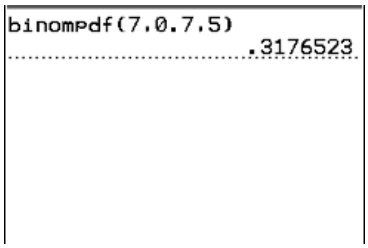
Enter 7 as the number of trials, 0.7 as the probability of success and 5 as the X value.

Navigate down to Paste and press enter.



Press enter.

The GDC displays the solution $\mathrm{P}(X = 5) = 0.318$.



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