

Chapter 11 / Example 15

Calculating cumulative binomial probabilities

Using example 14, find the probability that the courier delivers the package before 9.00 am at least five times during the week.

Assuming $X \sim B(7, 0.7)$

To find $P(X \geq 5)$

Press **MENU** 2 **STAT** to display the List Editor screen.

Press **F5** DIST **F5** BINOMIAL **F2** Bcd.

Choose **F2** Var.

Enter 5 as Lower, 7 as Upper, 7 as Numtrial and 0.7 as p.

Choose **F1** None to save the result.

```
Binomial C.D
Data :Variable
Lower :5
Upper :7
Numtrial:7
p :0.7
Save Res:None
[None] LIST
```

The GDC displays the solution $P(X \geq 5) = 0.647$.

```
Binomial C.D
p=0.6470695
```