

Selling Newspapers: An Example Problem with Probability

You run a newspaper stand. You cannot predict exactly how many copies of the *Daily Blab* newspaper, but in the past, you have observed the following demand pattern:

Demand	Percentage of the Time
20	1%
21	2%
22	3%
23	4%
24	5%
25	6%
26	6%
27	7%
28	7%
29	7%
30	7%
31	7%
32	7%
33	6%
34	5%
35	4%
36	4%
37	3%
38	3%
39	3%
40	3%

Each copy of the *Daily Blab* costs you \$0.35 and sells for \$0.45. You must place your order for the papers the night before they are sold, before you know exactly how many copies you will be able to sell. Unsold copies may be returned to the publisher at the end of the day for a credit of \$0.05 each. You can buy the paper only in multiples of five, and are considering stocking either 20, 25, 30, 35, or 40 papers per day.

What is the right number of papers to order each night?