Book store computer sales

The book store sells computers to students at a discount. The book store usually sells the computers at cost or for minimal profit. Each summer all incoming freshman come to a 3 day orientation program. The students usually come in groups of 100 throughout the summer. At the orientation they are usually given information on the purchasing program for the computers. The challenge for the book store is that they receive orders throughout the summer and some a few weeks before school starts. The computer suppliers require 6 weeks for delivery. Thus the bookstore must forecast demand to build up inventory to meet the students demand in the fall. Ordering too much will tie up the university cash reserves and also their limited inventory space. It also limits inventories for the other bookstore items during the busy season. Because of the low profit margin on the computers, the book store bottom line relies on these other items. The number of computers ordered also affects the number of employees the bookstore needs to hire to its ware house and also for PC installations. The number of truck trips from the warehouse to the bookstore each day is also affected by computer sales.

The book store purchase program has been in place for 14 years. Although the student population has remained stable during this period, computer sales have been somewhat volatile. Following are the historical sales data for computers during the first month of the fall registration:

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Computer sold** | **Year** | **Computer sold** |
| 1 | 518 | 8 | 792 |
| 2 | 651 | 9 | 877 |
| 3 | 708 | 10 | 693 |
| 4 | 921 | 11 | 841 |
| 5 | 775 | 12 | 1009 |
| 6 | 810 | 13 | 902 |
| 7 | 856 | 14 | 1103 |

Develop an appropriate forecast model for the bookstore management to use to forecast computer demand for next fall semester and indicate how accurate it appears to be. What other forecast might be useful to the bookstore? (Present a table that compares both methods). Show all work in a table in excel.