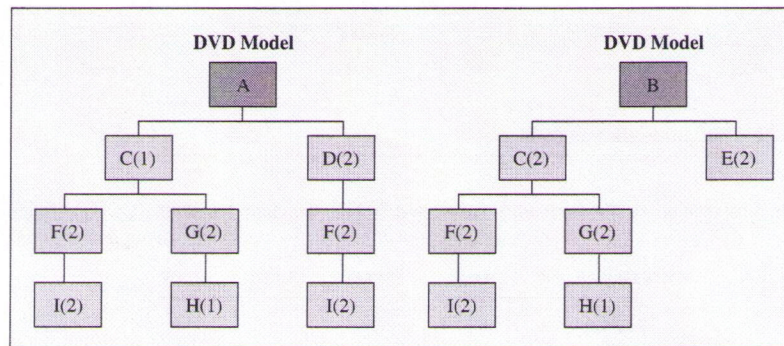


quantity (EOQ), and least total cost (LTC)? Also, what is the total cost associated with each lot-sizing technique?

WEEK	NET REQUIREMENTS	WEEK	NET REQUIREMENTS
1	10	5	20
2	30	6	40
3	10	7	50
4	50	8	30

- 18 Brown and Brown Electronics manufactures a line of digital videodisc (DVD) players. Although there are differences among the various products, there are a number of common parts within each player. The bill of materials, showing the number of each item required, lead times, and the current inventory on hand for the parts and components, follows:



ITEM	NUMBER CURRENTLY IN STOCK	LEAD TIME (WEEKS)
DVD Model A	30	1
DVD Model B	50	2
Subassembly C	75	1
Subassembly D	80	2
Subassembly E	100	1
Part F	150	1
Part G	40	1
Raw Material H	200	2
Raw Material I	300	2

Brown and Brown created a forecast that it plans to use as its master production schedule, producing exactly to schedule. Part of the MPS shows a demand for 700 units of Model A and 1,200 units of Model B in Week 10.

Develop an MRP schedule to meet the demand.



Excel:  
Nichols.xls

## CASE: NICHOLS COMPANY

This particular December day seemed bleak to Joe Williams, president of Nichols Company (NCO). He sat in his office watching the dying embers in his fireplace, hoping to clear his mind. Suddenly there came a tapping by someone gently rapping, rapping at his office door. "Another headache," he muttered, "tapping at my office door. Only that and nothing more."\*

The intruder was Barney Thompson, director of marketing. "A major account has just canceled a large purchase of A units because we are backordered on tubing. This can't continue. My sales force is out beating the bushes for customers, and our production manager can't provide the product."

For the past several months, operations at NCO have been unsteady. Inventory levels have been high, while at the same time, there have been stockouts. This has resulted in late deliveries, complaints, and cancellations. To compound the problem, overtime has been excessive.

### HISTORY

Nichols Company was started by Joe Williams and Susan Schaap, both with MBAs from the University of Arizona. Much has happened since Williams and Schaap formed the company. Schaap has left the company and is working in real estate