

Economic order quantity and optimal order size

[Economics](#)



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Book Company purchases papers from the Atlantic Paper Company.

Metropolitan produces magazines and paperbacks that require 1, 215, 000 pounds of paper per year. The cost per order for the company is \$1200; the cost of holding 1 pound of paper in inventory is \$0.08 per year. Determine the following: a) The economic order quantity b) The minimum total annual cost c) The optimal number of orders per year d) The optimal time between orders

Question 2 The purchasing manager for the Atlantic Steel Company must determine a policy for ordering coal to operate 12 converters. Each converter requires exactly 5 tons of coal per day to operate, and the firm operates 360 days per year. The purchasing manager has determined that the ordering cost is \$80 per order and the cost of holding coal is 20% of the average dollar value of inventory held. The purchasing manager has negotiated a contract to obtain the coal for \$12 per ton for the coming year.)

Determine the optimal quantity of coal to receive in each order. B)

Determine the total inventory-related costs associated with the optimal ordering policy (do not include the cost of the coal). C) If 5 days of lead time

are required to receive an order of coal, how much coal should be on hand when an order is placed? Question 3 The Pacific Lumber Company and Mill process 10, 000 logs annually, operating 250 days per year. Immediately upon receiving an order, the logging company's supplier begins delivery to the lumber mill, at a rate of 60 logs per day.

The lumber mill has determined that the ordering cost is \$1, 600 per order and the cost of carrying logs in inventory before they are processed is \$1.5 per log on an annual basis. Determine the following: a) The optimal order

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size b) The total inventory cost associated with the optimal order quantity. C) The number of operating days between orders d) The number of operating days required to receive an order. Economic Order Quantity and Optimal Order Size By nonmilitant