WORKSHEET ACTIVITY

EOQ – Economic Order Quantity

****

MULTIPLE CHOICE: Choose the best answer from the choices given.

The EOQ formula is a simple formula best applied in situations where demand, ordering, and holding costs are known and constant overtime.
The formula for EOQ is:

$$EOQ = \sqrt{\frac{2DS}{H}}$$

Where:
EOQ= Economic Order Quantity
D=Demand in units per time period (typically on an annual basis)
S=Order cost (a fixed cost per order)
H=Holding costs (per unit, per time period)

1. An assumption of EOQ is:
A. Demand is variable.
B. Demand is unknown.
C. An item is produced continuously.
D. An item is purchased in lots or batches.

2. Suppose the EOQ model is in use. Which of the following would typically cause the EOQ order quantity to decrease?
A. an increase in ordering cost
B. an increase in demand
C. an increase in holding cost
D. an increase in safety stock

3. What is the objective of the economic order quantity (EOQ) model for inventory?
a. To minimize order costs or carrying costs, whichever are higher.
b. To minimize order costs or carrying costs and maximize the rate of inventory turnover.
c. To minimize the total cost
d. To order sufficient quantity to certainly meet the next period's demand

4. A retail clothing shop carries a line of men's jeans, and the shop sells 1,000 pairs of jeans each year. It costs the company $5 per year to hold a pair of jeans in inventory, and the fixed cost to place an order is $200.

A. 267 pairs of jeans
B. 30 pairs of jeans
C. 283 pairs of jeans
D. 2404 pairs of jeans

The EOQ = the square root of (2 x 1,000 pairs x $200 order cost / $5 holding cost) = sqrt(80,000) = 283 to the nearest unit.

ROWTONS TRAINING