**1.** (TCO 5) What is the forecast for May, based on a weighted moving average applied to the following past-demand data and using the weights 4, 3, 2 (largest weight is for most recent data)?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Nov.** | **Dec.** | **Jan.** | **Feb.** | **Mar.** | **April** |
| 37 | 36 | 40 | 42 | 47 | 43 |

       42.5
       33.6
       40.3
       44.1
       39.22

**2.** (TCO 5) Jim's department at a local department store has tracked the sales of a product over the last ten weeks exponential smoothing with an alpha of 0.4. In January he forecasted $150,000 in sales and achieved $155,000 is sales. Using this same forecasting model, estimate Jim’s February sales.
       $152,000
       $155,000
       $157,000
       $305,000

**3.** (TCO 5)  What is the approximate forecast for May using a four-month moving average?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Nov.** | **Dec.** | **Jan.** | **Feb.** | **Mar.** | **April** |
| 39 | 36 | 40 | 42 | 48 | 46 |

       32
       44
       48
       40

**1.** (TCO 7) Which of these statements best describes virtual reality technology?
       It is used to monitor and control a physical process.
       It is the use of special computer programs to direct and control manufacturing equipment.
       It is the ability to depict objects in three-dimensional form.
       It is a visual form of communication in which images substitute for the real thing.

**2.** (TCO 7) Which of the following helps operations managers focus on the critical few and not the trivial many?
       value analysis
       value engineering
       financial analysis
       product-by-value analysis
       product cost justification

**3.** (TCO 7) Which of the following moments of truth exemplifies the customer's standard expectations?
       Your advisor made you wait, even though you had an appointment
       You had to visit more than once to reach your academic advisor
       Your advisor was competent, helpful, and understanding
       Your advisor failed to keep her appointment with you

**4.** (TCO 7) In which stage of the product life cycle is does cost control need to be improved?
       introduction
       growth
       maturity
       decline

**5.** (TCO 7) The specific components inputted into the third house in the house of quality are satisfied by
       the quality plan
       customer requirements
       design characteristics
       the production process

**6.** (TCO 5) The data points used in time-series forecasting
       are spaced randomly
       are never known
       have variable spacing
       are evenly spaced
       can not be determined

**7.** (TCO 5) Which of the following is **not** a step in the forecasting process?
       determine the use of the forecast
       eliminate any assumptions
       determine the time horizon
       select a forecasting model(s)
       validate and implement the results

**8.** (TCO 6) Which of these statements best describes computer-aided manufacturing (CAM)?
       It is the interactive use of computers to design a product and prepare engineering documentation.
       The use of special computer programs to direct and control manufacturing equipment.
       It is the ability to depict objects in three-dimensional form.
       It is a visual form of communication in which images substitute for the real thing.