

Answer on Question#54701 - Math - Statistics and Probability

A dealer marks his goods at 20% above the price he pays, but allows a customer a discount of 5% of the marked price of the goods. Find:

- (i) the price that a customer pays for goods marked \$646 (4 marks)
- (ii) the price that customer pays for goods that cost the dealer \$880 (3 marks)
- (iii) the cost to the dealer for goods for which a customer paid \$280.44 (3 marks)

Solution:

- (i) The price that a customer pays equals 95% of the marked price:

$$0.95 \cdot 646 = 613.7$$

- (ii) The marked price equals 120% of the price dealer pays for it:

$$1.2 \cdot 880 = 1056$$

The price that a customer pays is equal to the 95% of the previous one:

$$0.95 \cdot 1056 = 1003.2$$

- (iii) The marked price is given by:

$$\frac{280.44}{0.95} = 295.2$$

The cost to the dealer is then given by:

$$\frac{295.2}{1.2} = 246$$

Answer:

- (i) \$613.7
- (ii) \$1003.2
- (iii) \$246