Answer on Question #82814 – Math – Algebra

Question

A businessman in Philadelphia wants to buy electric heaters. His best sources are two firms in Chicago. Let's call them Firm A and Firm B. Firm A lists a heater at $291 less 33⅓% and 10%, F.O.B. Chicago. Firm B lists the same heater at $350, less 30% and 20%, F.O.B. destination. In addition, both firms offer a 2% discount for cash within 10 days. The freight on each heater would be $22.75. What will be the least cost of the heater from each concern?

Solution

Firm A: $291 * \left(1 - \frac{1}{3}\right) * (1 - 0.1) * (1 - 0.02) + \$22.75 = \$193.86.$

Firm B: $\$350 * (1 - 0.3) * (1 - 0.2) * (1 - 0.02) + \$22.75 = \$214.83.$

Answer: $193.86 from firm A and $214.83 from firm B.