

## Instruction

Open the break-even.xlsx workbook, fill in the data as follows, and answer the questions.

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A company produces 1,000 units of thermometers and sells them for \$19.99 per unit.

1. How much will the sales be if all items are sold out?

**Answer:**

The raw material used to manufacture one thermometer costs \$7.5. Other production costs, such as wages and electricity, are \$0.8 per unit on average. The shipping cost is \$1.1 per unit on average. In addition, there are marketing costs, such as product placement and advertising, average \$2.0 per unit.

2. How much is the variable costs per unit?

**Answer:**

In the manufacturing process, there is \$800 in factory rent, \$500 for insurance, \$1,200 administration fees, \$150 taxes, and another \$750 for other expenses.

3. How much is the total fixed costs for this period?

**Answer:**

4. If all 1,000 units of thermometer are sold out, what is the net profit? Also, identify if it is a gain or loss.

**Answer:**

5. How many units of thermometer do we need to sell in order to cover all the expenses?

**Answer:**

6. We noticed that we paid a lot for marketing. We plan to reduce the marketing cost down to \$1 per unit and lower the production level down to 900 units, but maintain the selling price. What would be better (\$2.0 marketing/1,000 units or \$1.0 marketing/900 units)?

**Answer:**

7. What taxonomy is this DSS (data-driven, knowledge-driven, model-driven, document driven, or communication driven)?

**Answer:**