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*IMPORTANT NOTE: SHOW COMPLETE WORK FOR FULL CREDIT.*

1.1Q.1.(TB16).Business. A company finds that if it produces and sells  $q$  units of a product, its total sales revenue in dollars is equal to  $100\sqrt{q}$ .

If the variable cost per unit is equal to \$ 2 and the fixed cost is equal to \$ 1200, find the value of  $q$  for which

total sales revenue = variable cost + fixed cost.

3.2Q.2. (TB17). Supply Equation. A refrigerator manufacturer will produce 3000 units when the price is equal to \$ 940, and 2200 units when the price is equal to \$ 740.

Assume that price,  $p$ , and quantity,  $q$ , produced are linearly related.

Find the supply equation.

$q =$  \_\_\_\_\_.

Supply Equation:

$p =$  \_\_\_\_\_  $q +$  \_\_\_\_\_.