SECTION 14-2 Break-Even Analysis

A break-even analysis tells you how many units of a product must be made and sold to cover the cost of production. Any item sold beyond the break-even point results in a profit for your business.

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\text{Break-Even Point in Units} = \frac{\text{Total Fixed Costs}}{\text{Selling Price per Unit} - \text{Variable Costs per Unit}}
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1. The Johnstowne Company manufactures porcelain figurines. The fixed costs of the product total $124,362.88. The average selling price per figurine is $210.10. The variable cost per figurine is $54.65. What is the break-even point in number of figurines?

2. Whisk-Off dog collar is produced by Pet Mart. It has total fixed costs of $12,000,000 in the manufacture of the collar. The selling price of each collar is $6.95. The variable cost per collar is $4.55. What is the break-even point in number of collars?

3. Tobby Toy manufactures teddy bears. It has total fixed costs of $232,552 in the production of the bears. The selling price of each bear is $19.16. The variable cost per bear is $15.15. What is the break-even point in number of bears?

4. Your company produces In-A-Stick glue in 8-oz tubes. The total fixed costs for the production of the glue are $477,999.50. The variable cost per tube is $0.38. The selling price is $1.16 per tube. What is the break-even point in tubes of In-A-Stick glue?

5. Forever Green Plastics manufactures garden tool sets for cultivating. Total fixed costs are estimated at $64,800. The variable cost per set is $2.95 and the selling price is $8.60. What is the break-even point?

6. Fleckston Rubber manufactures hood release levers for a car manufacturer. The fixed costs are $53,090. Each lever is sold for $3.76. The variable cost per lever is $1.77. What is the break-even point?