Profit loss and linear models

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A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Read the explanation and worked example. Show your working; use a calculator only where asked.

What you will practise

• Model revenue, costs and profit using rational numbers and linear rules.

• Explain a method and check the reasonableness of a result.

Useful starting skills: Use the prerequisite operations and representations shown in the worked example.

Profit equals revenue minus total cost. A negative profit is a loss. Percentage profit must name its base; here percentage profit on cost uses profit/cost×100%.

A simple model may contain fixed costs plus a variable cost per item. Define the number of items and test whether constant prices and costs are reasonable.

Worked example

A stall has fixed cost$40, cost$2 per item and selling price$6. Model profit for n items.

Revenue=6n; cost=40+2n.

Profit=6n-(40+2n)=4n-40.

Answer: P=4n-40

Try it yourself

Name: _____ Date: _____

1. An item costs$25 and sells for$32. Find profit.

2. Find percentage profit on cost when cost$40 and profit$12.

Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. $7

32-25.

2. 30%

12/40×100.

Curriculum reference: VC2M8N06; VC2M8A03

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