

Reverse Percentages, Percentage Change and Compound Percentage Problems

Year 9 · Number · y9-percent-of-amount

Name: _____

Date: _____

Class: _____

Score: ____ / ____

Instructions

Answer every question in Practice. Try the Challenge section once Practice is complete. 10 questions in total.

Practice

1. A price increases from £40 to £50. Find the percentage increase.

2. A price decreases from £80 to £60. Find the percentage decrease.

3. A price including 20% VAT is £84. What is the price before VAT?

4. A quantity increases by 25%, then decreases by 20% of the new value. What is the overall percentage change?

5. A shop's sales increased from 250 to 300 items. Find the percentage increase.

6. A jacket's price after a 15% increase is £69. Divide by 1.15, not 0.85, to find the original price. What was the original price?

7. Percentage change = $(\text{change} \div \text{original}) \times 100$, using the original value as the denominator. A population grows from 500 to 620. Find the percentage increase.

8. Two successive percentage changes do not simply add together. A price rises by 10%, then rises by a further 10% of the new price. What is the overall percentage increase?

Challenge

1. A price increases by 10%, then decreases by 10% of the new price. Give the overall percentage change (as a negative number if it is a decrease).

2. A shop increases prices by 25%, then has a sale reducing the new prices by 20%. A jumper originally cost £40. What is its final price after both changes?
