# Guide to:
# Reverse percentages

maths Links

**Explanation:**

Reverse percentage questions give you the **new value after** a percentage change and ask for the **original amount (100%)**. Never work out the percentage of the new amount—the percentage was calculated from the original amount, not the final one.

First write the new percentage by adding to 100% (for an increase) or subtracting from 100% (for a decrease/sale). Then either divide the new amount by the decimal multiplier, or divide to find **1%** and multiply by **100** to get **100%**.

**Example 1:** In a **15% off** sale, a jacket costs **£68**. Work out the normal price of the jacket before the sale.

**Solution:**

Sale price is 100% − 15% = **85%** of the original price
85% = £68 (decimal multiplier = **0.85**)
1% = £68 ÷ 85 = **£0.80**
100% = £0.80 × 100 (or £68 ÷ 0.85) = £80
**Answer: £80**

**Example 2:** After a **6% pay rise**, Maya earns **£25,440** per year. What was her salary before the pay rise?

**Solution:**

New salary is 100% + 6% = **106%** of original salary
Decimal multiplier = **1.06**
Original × 1.06 = £25,440
Original = £25,440 ÷ 1.06 = £24,000
**Answer: £24,000**

| Worksheets and other links | | | | | |
|---|---|---|---|---|---|
| **Video Lesson on this topic** | Video | | **Naiker Maths** | Qs | Ans |
| **Ken Stafford (Past Paper Qs)** | Qs | Ans | **Dr Austin Maths** | Qs | Ans |
| **Maths Genie** | Qs | Ans | **Maths Made Easy** | Qs | Ans |
| **Corbettmaths (Practice)** | Qs | Ans | **Maths4Everyone** | Qs | Ans |
| **Corbettmaths (Textbook)** | Qs | Ans | **E Classroom** | Qs | Ans |
| **1st Class Maths** | Qs | Ans | **PMT (Edexcel)** | Qs | Ans |


**Questions by topic**

**Past Papers**

**Maths worksheets**

**Buy workbook**

**Quizzes**

**More resources like this**



**ken@mathslinks.co.uk**