JRA Tutors
Private tuition and small online Study Pods

Reverse Percentages

Grade 5 topic · Foundation and Higher · Edexcel and AQA

How to use this pack
20 questions that get harder as you go. Foundation students: aim for Questions 1–15 (50 marks) and have a go at the rest. Higher students: complete all 20. Show your working on the lines and write your final answer on the answer line, then mark yourself with the answers at the back. Diagrams are not drawn accurately. Total: 74 marks.

Warm-up

1 After a 20% increase, a price is £432. Work out the original price. **[3 marks]**

Answer _____

2 After a 25% increase, a price is £350. Work out the original price. **[3 marks]**

Answer _____

3 After a 30% increase, a price is £650. Work out the original price. **[3 marks]**

Answer _____

4 After a 25% increase, a price is £275. Work out the original price. **[3 marks]**

Answer _____

5 After a 20% increase, a price is £288. Work out the original price. **[3 marks]**

Answer _____

Core

6 In a sale prices are reduced by 20%. A jacket costs £400 in the sale. Work out its original price. **[3 marks]**

Answer _____

7 In a sale prices are reduced by 30%. A jacket costs £126 in the sale. Work out its original price. **[3 marks]**

Answer _____

8 In a sale prices are reduced by 10%. A jacket costs £414 in the sale. Work out its original price. **[3 marks]**

Answer _____

9 In a sale prices are reduced by 30%. A jacket costs £350 in the sale. Work out its original price. **[3 marks]**

Answer _____

10 In a sale prices are reduced by 40%. A jacket costs £300 in the sale. Work out its original price. **[3 marks]**

Answer _____

Stretch

11 A price including 20% VAT is £264. Work out the price before VAT. **[4 marks]**

Answer _____

12 A salary after a 30% pay rise is £52000. Work out the salary before the rise. **[4 marks]**

Answer _____

13 A car loses 40% of its value and is now worth £18000. What was it worth before? **[4 marks]**

Answer _____

14 A number is increased by 20% to give 336. Find the number. **[4 marks]**

Answer _____

15 A TV is on sale at 25% off for £285. Work out the original price. **[4 marks]**

Answer _____

Challenge

16 A price is increased by 10% and then by a further 20%. The final price is £660. Work out the original price. **[5 marks]**

Answer _____

17 The price of a coat is reduced by 20%, then by a further 10%. It now costs £576. Work out its original price. **[5 marks]**

Answer _____

18 In a sale prices are cut by 30%. Kim also has a 10% discount voucher and pays £252. Work out the original price. **[5 marks]**

Answer _____

19 A population increased by 5% to 94,500. What was it before the increase? **[4 marks]**

Answer _____

20 After a 40% decrease a quantity is 204. By what percentage must the new value be increased to return to the original? Give your answer to 1 decimal place. **[5 marks]**

Answer _____