



# Reverse percentage

Mana Maths

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# Te reo Māori terms



**ōrau**

percentage

Open in Te Aka

**piki**

increase/growth

Open in Te Aka

**heke**

decrease/drop

Open in Te Aka

# Foundation

1. After a 10% discount, a shirt costs \$45. What was the original price?
2. A toy is on sale for \$72 after a 20% discount. What was the original price?
3. After a 25% discount, a book costs \$30. What was the original price?
4. A meal costs \$85 after a 15% discount. What was the original price?
5. After a 30% discount, a jacket costs \$140. What was the original price?
6. A bike is on sale for \$360 after a 10% discount. What was the original price?
7. After a 5% discount, a calculator costs \$38. What was the original price?
8. A phone costs \$450 after a 25% discount. What was the original price?
9. After a 40% discount, a table costs \$180. What was the original price?

**10.** A pair of shoes costs \$64 after a 20% discount. What was the original price?

**11.** After a 12% discount, a bag costs \$44. What was the original price?

**12.** A laptop costs \$880 after a 20% discount. What was the original price?

# Proficient

1. After a 15% increase (GST), a product costs \$115. What was the price before GST?
2. After a 20% increase, a salary is \$4800. What was the original salary?
3. After a 5% increase, a house's value is \$315,000. What was the original value?
4. After a 12.5% increase, a ticket costs \$45. What was the original cost?
5. After a 30% increase, a population is 6500. What was the original population?
6. After a 8% increase, a bill is \$162. What was the original bill?
7. A price increased by 20% then decreased by 10% to become \$216. What was the original price?
8. A number increased by 15% then decreased by 5% to become 218.5. What was the original number?
9. After a 25% discount followed by a 10% discount, an item costs \$135. What was the original price?

**10.** A salary increased by 10% then increased by another 10% to become \$6050. What was the original salary?

**11.** After a 20% discount then a 5% discount, a TV costs \$380. What was the original price?

**12.** A stock price decreased by 30% then increased by 40% to become \$98. What was the original price?

# Excellence

- 1.** An investment grows by 5% per year for 2 years and is now \$11,025. What was the initial investment?
- 2.** A population decreases by 8% each year for 3 years and is now 778,688. What was the original population?
- 3.** A price is increased by 20% then decreased by 20%. The final price is \$96. What was the original price?
- 4.** A number is increased by 25% and then decreased by 40% to become 75. What was the original number?
- 5.** After a 10% discount and then a surcharge of 5 dollars, the price is 86 dollars. What was the original price?
- 6.** A salary increased by 15% and then by a further 10% to become \$5060. What was the original salary?

- 7.** A rectangle's length increased by 20% and width decreased by 10%, and the area became 432 square centimetres. What was the original area?
- 8.** A car's price increased by 20% and then decreased by 2000 dollars to become 28,000 dollars. What was the original price?
- 9.** A shop offers 30% off, then an additional 10% off the discounted price. The final price is \$126. What was the original price?
- 10.** A stock price fell by 10% then rose by 10% to become \$99. What was the original price?
- 11.** After a 12.5% tax, a meal costs \$45. What was the pre-tax cost?
- 12.** A jacket is on sale for \$144 after a 20% discount. What was the original price?