Percentages: Change, Interest and Reverse

Year 10–11 Maths · Years 10–11 · NCEA Level 1 · About 25 minutes · 8 questions

Name _____ Date _____ Score / 8

WHAT YOU WILL PRACTISE

- Find a percentage of an amount and express one amount as a percentage of another
- Increase and decrease an amount by a percentage
- Solve compound interest and reverse percentage problems

WORKED EXAMPLE

Decrease $60 by 15%.

1. A 15% decrease leaves 100% − 15% = 85% of the original.
2. Write 85% as a multiplier: 0.85.
3. Multiply: $60 × 0.85 = $51.

Answer: $51

Questions

Show your working in the space under each question.

1. Find 15% of 80

2. Write 18 out of 60 as a percentage

3. Increase $240 by 15%

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4. Decrease 350 kg by 20%

5. A coat costs $80. In a sale the price is reduced by 35%. Work out the sale price.

6. The price of a ticket rises from $50 to $58. Work out the percentage increase.

7. $2,000 is invested at 3% per year compound interest. Work out the value of the investment after 2 years.

8. After a 20% increase, a phone costs $360. Work out the price before the increase.

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Answers: Percentages: Change, Interest and Reverse

Mark your own work, then go back to any question you got wrong before reading the tutor tip.

Q	QUESTION	ANSWER
1	Find 15% of 80	**12**
2	Write 18 out of 60 as a percentage	**30%**
3	Increase $240 by 15%	**$276**
4	Decrease 350 kg by 20%	**280 kg**
5	A coat costs $80. In a sale the price is reduced by 35%. Work out the sale price.	**$52**
6	The price of a ticket rises from $50 to $58. Work out the percentage increase.	**16%**
7	$2,000 is invested at 3% per year compound interest. Work out the value of the investment after 2 years.	**$2,121.80**
8	After a 20% increase, a phone costs $360. Work out the price before the increase.	**$300**

TUTOR TIP

For a reverse percentage, divide by the multiplier. Never take the percentage off the new price, because the percentage was of the original.

Stuck on a question? Work through it live with a tutor.

YFCampus offers one-to-one online Maths tutoring matched to your school curriculum. Book a free trial class at **www.yfcampus.com/nz**

Written for students aged 13 to 16 and suitable for Years 10–11. Check your school’s curriculum for the exact order of topics. YFCampus is independent and is not affiliated with any exam board or education ministry.