Rounding and Estimation

Year 10–11 Maths · Years 10–11 · NCEA Level 1 · About 20 minutes · 8 questions

Name _____ Date _____ Score / 8

WHAT YOU WILL PRACTISE

- Round to a given number of decimal places
- Round to a given number of significant figures
- Estimate the answer to a calculation by rounding to 1 significant figure

WORKED EXAMPLE

Round 0.03584 to 2 significant figures.

1. Find the first significant figure: the first non-zero digit, which is 3.
2. The second significant figure is 5, so the answer will be 0.035 or 0.036.
3. Look at the next digit, 8. It is 5 or more, so round up.

Answer: 0.036

Questions

Show your working in the space under each question.

1. Round 4,836 to the nearest hundred

2. Round 7.386 to 2 decimal places

3. Round 0.04729 to 2 significant figures

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4. Round 68,450 to 1 significant figure

5. Round 12.96 to 1 decimal place

6. Estimate 48.7 × 21.2 by rounding each number to 1 significant figure

7. Estimate (6.8 × 31.4) ÷ 0.48 by rounding each number to 1 significant figure

8. A length is 8.4 cm, correct to 1 decimal place. Write down the smallest possible length.

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Answers: Rounding and Estimation

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

Q	QUESTION	ANSWER
1	Round 4,836 to the nearest hundred	**4,800**
2	Round 7.386 to 2 decimal places	**7.39**
3	Round 0.04729 to 2 significant figures	**0.047**
4	Round 68,450 to 1 significant figure	**70,000**
5	Round 12.96 to 1 decimal place	**13.0**
6	Estimate 48.7 × 21.2 by rounding each number to 1 significant figure	**50 × 20 = 1000**
7	Estimate (6.8 × 31.4) ÷ 0.48 by rounding each number to 1 significant figure	**(7 × 30) ÷ 0.5 = 420**
8	A length is 8.4 cm, correct to 1 decimal place. Write down the smallest possible length.	**8.35 cm**

TUTOR TIP

Zeros at the start of a decimal are not significant. Start counting at the first non-zero digit.

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.