# Rounding and Estimation

IGCSE Maths · Grades 9–10 · British and American curriculum · 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/sa**

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