

Calculator skills 1

These calculator keys are really useful:

x^2 Square a number.

$(-)$ Enter a negative number.

x^3 Cube a number.

$\sqrt{\square}$ Find the square root of a number.

x^{-1} Find the reciprocal of a number.

$\sqrt[3]{\square}$ Find the cube root of a number. You might need to press the shift key first.

Ans Use your previous answer in a calculation.

S_dD Change the answer from a fraction or surd to a decimal. Not all calculators have this key.

Rounding rules

1 To round a number, you look at the next digit on the right.

5 or more → round up less than 5 → round down

2 Decimals can be rounded to a given number of **decimal places** (d.p.).

$6.475 = 6.48$ correct to 2 d.p.

3 To write a number correct to **3 significant figures** (3 s.f.), look at the fourth significant figure.

$0.003\ 079 = 0.003\ 08$ to 3 s.f.

4 Leading zeros in decimals are not counted as significant.

5 Remember that the rule for significant figures still applies to **whole numbers**.

$27 = 30$ to 1 s.f.

Worked example

(a) Work out the value of $\frac{\sqrt{8.3}}{12.5 - 7.3}$

Give your answer as a decimal.

Write down all the figures on your calculator display.

Target grade 4

(2 marks)

$$\frac{\sqrt{8.3}}{12.5 - 7.3} = \frac{2.88097}{5.2} = 0.554033088$$

(b) Find the reciprocal of 12.5. Give your answer as a decimal.

(1 mark)

$$1 \div 12.5 = 0.08$$

Examiners' report

If you have to work out a calculation like this in your exam, you should work out the numerator (top) and denominator (bottom) **separately**, and **write them both down**. Then divide to work out the final answer. Read the question carefully. You have to write down **all the figures** from your calculator display.

Real students have struggled with questions like this in recent exams – **be prepared!**



Read the question carefully. You have to give the answer as a **decimal**, so you might need to use the **S_dD** button on your calculator.

Now try this

Target grade 4

(a) Work out the value of $\frac{6.1 + 7.5}{1.8^2}$

Give your answer as a decimal.

Write down all the figures on your calculator display.

(2 marks)

(b) Give your answer to part (a) correct to 3 significant figures.

(1 mark)

Make sure you write down three significant figures even if the last digit is a zero.