This page outlines some of the key things that you should remember when sitting exams and unit assessments in order to avoid losing marks.

Units

To be fully correct, answers should <u>always</u> contain the correct units. As a general rule, you will lose the mark for the final answer if you do not include the correct units.
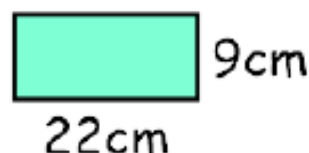
There are some occasions where your teacher will still be allowed to give you the mark, even without the correct units, but you do not need to know what these are: the only way to guarantee that you do not lose a mark is to ensure you <u>always</u> include units!

It is especially important to use the correct units in questions relating to area and volume:

- If the question asks you to calculate a **volume**, the units are 'cubic'– e.g. m^3, cm^3, mm^3
- If the question asks you to calculate an **area**, the units are 'squared'– e.g. m^2, cm^2, mm^2
- If the question asks you to calculate a length (including a **perimeter**, a **circumference** or an **arc length**), the units are 'normal' units – e.g. m, cm, mm.

<u>Example</u> (this example is below National 5 standard, but is included to focus on the units)

Calculate the area of this rectangle (1 mark)

9cm

22cm

Example Solutions

Solution One	Solution Two	Solution Three
$A = LB$	$A = LB$	$A = LB$
$= 22 \times 9$	$= 22 \times 9$	$= 22 \times 9$
$= 198$ ✗	$= 198cm$ ✗	$= 198cm^2$ ✓

Solution One: You would <u>not</u> get the mark for this answer as the answer contains no units

Solution Two: You would <u>not</u> get the mark for this answer as the answer contains incorrect units.

This is an area question, so squared units are needed for the answer

You would also have lost the mark if you had used cm^3, or if you had writen m^2 instead of cm^2

Solution Three: You would get the mark for this answer as the answer contains the correct units

Rounding

If a mark requires you to round your answer, you <u>have to</u> write down your unrounded answer before you then do the rounding. This is because there are often two marks related to the rounding:

- **The final mark** (for the rounding).
- **The previous mark** (for the actual answer).

A lot of people get frustrated by this. But whether you like it or not, if you do not write down your unrounded answer first, you will risk losing both marks **even if you have the correct answer**.

This rule applies in questions where you are explicitly told to round (e.g. 'give your answers correct to 2 significant figures'), or questions where you have to realise for yourself that you have to round. There are two common examples of this:

- **Money questions**, where you have to <u>know</u> to give decimal answers to 2 decimal places. (e.g. you cannot have an answer of £2·587, you have to round it to £2·59)
- **Real-life situations where decimal answers make no sense**, where you have to know to round up (or down) to the nearest whole number. The example below is an example of this sort.

<u>Example</u> (this example is below National 5 standard, but is included to focus on the rounding)

One bus holds 56 people. How many buses must be ordered to take 1294 football fans from Inverness to Glasgow?

Example Solutions

In this question, you have to realise that it is impossible to have a decimal number of buses, so you have to round to a whole number. You also have to realise that you always have to round <u>up</u> to the next whole number.

<u>Solution That Would Get Full Marks</u>	<u>Solution That Would Lose Marks</u>
$1294 \div 56 = 23 \cdot 107...$	$1294 \div 56$
24 buses are needed	24 buses are needed
✔	✘

Notice that you do not have to write down every decimal place from your calculator. It is enough to write a few 'extra' decimal places.

Fractions

If your answer contains a fraction, you should always give your fraction in its simplest form. For example:

1. an answer of $\dfrac{-5}{-3}$ should be simplified to $\dfrac{5}{3}$

2. an answer of $\frac{6}{8}$ should be simplified to $\frac{3}{4}$

3. an answer of $\frac{30}{25}$ should be simplified to $\frac{6}{5}$

'Strategy' Marks (#2.1)

Each of the three units of the National 5 mathematics course contains an assessment standard 2.1 (often referred to as #2.1 in documentation). The marks for this assessment standards are called 'reasoning' marks, and are separate to the 'process' marks awarded for getting the calculations correct. This assessment standard is for *'Interpreting a situation where mathematics can be used and identifying a valid strategy'*. This assessment standard will also be tested in the final exam paper.

In everyday language, this assessment standard most commonly requires you to choose a method to answer a question; usually in a question that is slightly unfamiliar to you (a 'non-routine' question).

'Communication' Marks (#2.2)

Each of the three units of the National 5 mathematics course contains an assessment standard 2.2 (often referred to as #2.2 in documentation). The marks for this assessment standards are called 'reasoning' marks, and are separate to the 'process' marks awarded for getting the calculations correct. This assessment standard is for *'Explaining a solution and/or relating it to context'*. This assessment standard will also be tested in the final exam paper.

In everyday language, this assessment standard most commonly requires you to **write a sentence** after performing a calculation.

There are various ways that this assessment standard can be tested. Three possible ways are outlined below:

1. **Writing comments related to statistics** (e.g. the median, mean, interquartile range or standard deviation) in the *Applications* unit. A full description of the technique required to answer these questions is given on page 86.

2. **Realising that a final answer needs to be rounded** to the nearest whole number and for giving your answer in a sentence. An example of this type is given on page 6. You have to ensure that you show your unrounded answer as well.

3. Questions that say **'give a reason for your answer'** or **'explain your answer'**. A valid reason at National 5 must involve **comparing <u>two</u> numbers**.

<u>Example</u> (this example is below National 5 standard, but is included to focus on the reason)

> **Jack has £17. Ben has £8. They need £30 to buy a computer game. Do they have enough? Give a reason for your answer**

Solution

You <u>would not</u> get a mark for the following:
- No   *(no reason at all)*
- No, because they do not have £30   *(just repeating the number from the question)*
- No, because they only have £25   *(not comparing <u>two</u> numbers)*

You <u>would</u> get a mark for:
- No, because they have £25 and they need £30   *(two numbers compared)*
- No, because they need £5 more.   *(writing down the difference between the numbers counts as comparing two numbers)*