## Image

## The Subject, Week 1

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(If you wish to write the answer directly)
Problem 1
Here lies the solution / proof.
(If you wish to state the problem and then write your answer)
Problem 2 (Brief description)
You may also state the problem here
Solution and write the solution here
(If you prefer "Proof" instead of "Solution")
<u>Proof</u> or a proof like this one
<b>Lemma 2.1</b> (You may write some description here)
Some auxiliary result.
<i>Proof.</i> The proof of lemma 2.1, where we use the following formula (note the use of \qedhere):
$\infty = \infty + 1.$
FACT 2.2 (This statement requires no proof)
Use <b>\proofless</b> to change the hollow box marking the end of a theorem-type environment into a solid one.
and the rest steps
(You may also write answer instead of solution if you wish)
<u>Answer</u> The usage of the answer environment is exactly the same as solution.
(If you prefer the classical proof style)
<i>Proof.</i> The usual proof environment also works.

(If you wish to answer each sub-question of a problem separately...)

**Problem 3** (A problem with many sub-questions)

1) First question.

Solution The solution of the first question.

- 2) Second question.
  - i) First sub-question.

Solution The solution of the first sub-question.

ii) Second sub-question.

<u>Solution</u> The solution of the second sub-question.

3) Third question.

<u>Solution</u> The solution of the third question.

Use \noqed (or \noQED) at the end to suppress the Q.E.D. symbol that marks the end of the current problem.

(If there is a question that you can't figure out how to solve at the moment...)

To be finished #1: some description

Below is a list of outstanding items, followed by the corresponding page numbers.

#1  $\langle 2 \rangle$ : some description