A1 Post Mortem

Question 1

- · This question was generally well done
- Some students used limit rules instead of proving the result from first principles
- For students who provided correct n_0 and c but did not fully derive them, 0.5 1 mark was taken off.

Question 2

- Some students who used L'Hôpital's Rule did so incorrectly.
- Some students did not provide enough justification for finding limits, and instead only gave intuitive arguments.

Question 3

- Some students attempted to prove that the statement was true in (3a).
- Some students used functions which were not positive in (3a)
- In (3b) some students used $a \le b$ and $c \le d$ implies $\frac{a}{c} \le \frac{b}{d}$ which is not a true identity (take (a, b, c, d) = (1, 1, 1, 2)).
- Some students did not correctly specify n_0 .
- (3c) and (3d) were generally well done

Question 4

- Many students did not consider either the cases where the if statement did execute or the if statement did not execute in (4a).
- (4b) was generally well done
- Many students did not consider the fact that i increments by 10 in the outer loop.
- Some students did not show enough work when evaluating the final sum

Question 5

- This question was generally well done
- Some students just stated that some value of *c* must exist without actually finding it.