S1 Level 3 Formal Homework
(Show all working!)

Non Calculator Section: If working is not shown for this section then no marks will be awarded.

1.   a) 80% of £350   b) $\frac{2}{3}$ of £750   c) -10 – (-5)

2.   Write down the first six (non-zero) multiples of:
      (a) 5   (b) 3

3.   Find the lowest common multiple of:
      (a) 6 and 8   (b) 3, 5, and 6

4.   Find the highest common factor between:
      (a) 12 and 18   (b) 24 and 40

5.   Which of the following numbers are prime?
      1, 4, 5, 6, 9, 11, 18, 21, 23, 27, 33, 35, 37, 39, 49, 51.

6.   Use prime factorisation to write the following as a product of primes:
      (a) 60   (b) 250

7.   A bus leaves for town every 4 minutes; the train leaves every 5 minutes; and the subway every 6 minutes.
      How many minutes pass before they all leave together?

8.   Are the numbers below prime? Give a reason for your answer.
      (a) 13572   (b) 55555

9.   (a) What is 11^2 ?   (b) What is 4^3 ?   (c) What is $\sqrt{81}$?

Revision Section:
10.   Shown below is the cost of Jenna's mobile phone for each month.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Bill	£15	£20	£15	£25	£30	£45	£10	£15	£5	£25	£20	£30

      (a)   Display this information in a line graph.
      (b)   Between which two months was there the biggest drop in the bill?
      (c)   One month Jenna had her mobile confiscated for three weeks because of poor homework marks. What month do you think this was? **Give a reason for your answer.**