

S4 National 5 Homework
Simultaneous Equations

Name

Class

Mark

Q1. Solve algebraically

a. $3p - 2q = 4$

$7p - 3q = 1$

b. $3a + 1.2b = 14.4$

$a - 0.5b = 3$

Q2. Mr. Martini is ordering tea and coffee for his cafe. He spends exactly £108 on these each month.

In March he orders 4kg of tea and 6kg of coffee. In April he changes his order to 8kg of tea and 3 kg of coffee.

How much do the tea and coffee cost each per kilogram ?

Q3. An electrical goods warehouse charges a fixed price per item for goods delivered plus a fixed rate per mile.

The total cost to a customer 40 miles from the warehouse for the delivery of 5 items was £30.

A customer who lived 100 miles away paid £54 for the delivery of 2 items.

Find the cost to a customer who bought 3 items and lives 70 miles away.

Q4. A straight line with equation $y = ax + b$ passes through the points (2, 4) and (-2, -2).

Find the equation of the line.