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Description automatically generated**Worded Linear Simultaneous Equations

For each of the following questions:

1. Set up a pair of simultaneous equations;
2. Solve the simultaneous equations algebraically; and
3. Make sure you’ve completely answered the question before moving on!

**Show your working fully in your book.**

1. A taxi firm charges a fixed amount plus so much per mile. A journey of 6 miles costs £3.70. A journey of 10 miles costs £5.10. What would be the cost of a journey of 8 miles?
2. When you book Bingham Hall for a conference, you pay a fixed booking fee plus a charge for each delegate at the conference. The total charge for a conference with 65 delegates was £192.50. The total charge for a conference with 40 delegates was £180. What will be the charge for a conference with 70 delegates?
3. Amul and Kim have £10.70 between them. Amul has £3.70 more than Kim. Let be the amount Amul has and be the amount Kim has. Set up a pair of simultaneous equations. How much does each have?
4. The two people in front of me at the Post Office were both buying stamps. One person bought 10 second-class and 5 first-class stamps at a total cost of £3.45. The other bought 8 second-class and 10 first-class stamps at a total cost of £4.38. How much did I pay for 3 second-class and 4 first-class stamps?
5. At a local tearoom, I couldn't help noticing that at one table, where the customers had eaten six buns and had three teas, the bill came to £4.35. At another table, the customers had eaten 11 buns and had seven teas at a total cost of £8.80. My family and I had five buns and six teas. What did it cost us?
6. Three chews and four bubblies cost 72p. Five chews and two bubblies cost 64p. What would three chews and five bubblies cost?
7. On a nut-and-bolt production line, all the nuts weighed the same and all the bolts weighed the same. An order of 50 nuts and 60 bolts weighed 10.6 kg. An order of 40 nuts and 30 bolts weighed 6.5 kg. What should an order of 60 nuts and 50 bolts weigh?
8. Two members of the same church went to the same shop to buy material to make Christingles. One bought 200 oranges and 220 candles at a cost of £65.40. The other bought 210 oranges and 200 candles at a cost of £63.40. They only needed 200 of each. How much should it have cost them?

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| Question | (i) | (ii) | (iii) |
| 1 |  | £1.60  £0.35 | £4.40 |
| 2 |  | £160  £0.50 | £195 |
| 3 |  | £7.20  £3.50 | - |
| 4 |  | 21p  27p | £1.71 |
| 5 |  | £0.45  £0.55 | £5.55 |
| 6 |  | 8p  12p | 84p |
| 7 |  | 0.08  0.11 | £10.30 |
| 8 |  | 14p  17p | £62 |