

National 5 Final Exam Practice

Algebraic Skills

Simultaneous Equations

Average Allocation

4 marks

1. Solve the following system of equations **algebraically**:

$$2x - 3y = 13$$

$$5x + 2y = 4$$

2. In a café, 3 cups of coffee and 2 cakes cost £15.35

a) Write down an equation to illustrate this information

- b) In the same café, 4 cups of coffee and 3 cakes cost £21.05
Write down a second equation to illustrate this information.

c) Calculate the cost of one cup of coffee and one cake.

3. Pack 'n' Go Luggage is selling off some old stock. Two large cases and 3 small cases cost £366.35

a) Write an equation to illustrate this information.

- b) Three large cases and one small case cost £343.20.
Write a second equation to represent this information.

c) Calculate the cost of one large case and one small case.

4. The cost of 3 adult tickets and 2 child tickets to Movieworld Theme park is £215.

a) Write an equation to illustrate this information.

- b) Two adult tickets and 4 child tickets cost £222.
Write a second equation to illustrate this information.

c) Calculate the cost of one adult ticket and one child ticket.

5. Solve the following set of equations **algebraically**.

$$4x - 3y = 8$$

$$3x - 5y = 17$$

6. In the diagram below, line AB has equation $y = 3x + 5$ and line PQ has equation $2x + 5y = 8$. Find the coordinates of T, the point of intersection of the lines.

