**CLASS WORK**

**SECTION A**

**Solve by substitution**

1. $4x - y = 52$
   $x + y = -2$

2. $3x - 17 = y$
   $\frac{x}{5} = -\frac{y}{2}$

**Solve by elimination**

3. $3x - 2y = 5$
   $x - 2y = -1$

4. $\frac{7x-1}{3} - \frac{2y+3}{5} = \frac{10}{3}$
   $\frac{5x+2}{4} + \frac{3y-2}{5} = \frac{16}{5}$

**Solve Graphically**

5. $3x - y = 3$
   $2x + y = 7$

6. $3x + 2y = 7$
   $2x - 5y = 11$

**SECTION B**

**FOR EACH OF THE FOLLOWING FORM TWO (simple) EQUATIONS, IN TERMS OF $x$ and $y$ which can be used to solve the problems (you do not need to solve the problems).**

7. If x is the smaller number and y is the larger number, find two numbers where three times the smaller exceeds the larger by 5 and the sum of the numbers is 11.

8. If 3 is added both to the numerator and the denominator of a fraction the result is equivalent to $\frac{4}{5}$. If 2 is subtracted from the numerator and the denominator of the original fraction, the new result is equivalent to $\frac{3}{5}$. If x is the numerator of the original fraction and y is the denominator of the original fraction, Find the original fraction.

9. Mr. Knight bought five sheep and six goats for $183. From the same market Mrs Langton bought ten sheep and three goats for $204. What was the market charging for a sheep, $x, and a goat, $y?

10. For a concert, 1000 tickets are sold at either $12 or $18. The total amount received is $9280. If x, $12 tickets and y, $18 tickets were sold, how many of each price was sold?

11. The relationship between two variables, $x$ and $y$, is given by the equation $y = px + q$. If $y = 3$ when $x = 2$ and $y = 10$ when $x = -3$, write down two simultaneous equations. Solve these equations to find $p$ and $q$.

12. In an examination, candidates score $x$ marks for a correct answer and lose $y$ marks for an incorrect answer. Moses got 15 questions correct, 4 incorrect and scored 63 marks. Joseph got 12 questions correct, 7 incorrect and scored 39 marks. Find $x$ and $y$. How many marks would Sarah score if she got 16 questions correct and 3 incorrect?

13. A father's present age is $x$ and his son's present age is $y$. The father is four times as old as his son is now; and six years ago he was ten times as old as his son was then. Find their present ages.