

## Simultaneous Equations

1. There were 1200 children in a school hall. When  $\frac{5}{8}$  of the boys and  $\frac{7}{10}$  of the girls left the hall, the total number of boys and girls who remained was 420. How many boys were at the hall at first?

Ans: \_\_\_\_\_

2. John had a total of 180 ducks and chickens. He sold  $\frac{1}{4}$  of the ducks and  $\frac{1}{3}$  of the chickens. Altogether, he sold 51 animals. How many chickens did he sell?

Ans: \_\_\_\_\_

3. The total length of two ropes, A and B, is 630cm.  $\frac{2}{5}$  of rope A and  $\frac{1}{3}$  of rope B is 2.3m.  
What is the length of rope A at first?

Ans: \_\_\_\_\_

4. There are 136 children in a school.  $\frac{3}{7}$  of the boys and  $\frac{1}{3}$  of the girls wear glasses. There are 52 children who wear glasses.  
(a) How many boys wear glasses?  
(b) How many girls wear glasses?

Ans: (a) \_\_\_\_\_ (b) \_\_\_\_\_

5. Peter had 560 chickens and ducks. After selling  $\frac{3}{4}$  of the ducks and 50% of the chickens, a total of 230 animals were left.
- (a) How many ducks were left?
- (b) What is the ratio of the number of chickens left to the number of ducks left? Express your answer in its simplest form.

Ans: (a) \_\_\_\_\_ (b) \_\_\_\_\_

6. John had 360 blue marbles and 180 red marbles in Box A. He also had 440 blue marbles and 320 red marbles in Box B. After moving some marbles from Box B to Box A, 75% of the marbles in Box A and 40% of the marbles in Box B were blue. How many marbles did John move from Box B to Box A?

Ans: \_\_\_\_\_

7. There were 225 apples and 253 mangoes in Box A. There were 260 apples and 212 mangoes in Box B. Peter moved some apples and mangoes from Box B to Box A. In the end, 40% of the fruits in Box A and 70% of the fruits in Box B were apples. How many fruits did Peter move from Box B to Box A?

Ans: (a) \_\_\_\_\_ (b) \_\_\_\_\_

8. Mary had \$13. She spent all her money on 10 files and 4 pens. If she had bought 3 files and 12 pens instead, she would have a shortage of \$7.10. How much did each pen cost?

Ans: \_\_\_\_\_

9. Mr Tan had a total of 1051 apples, bananas and cherries at first. The ratio of the number of bananas to cherries was 3 : 5. After selling  $\frac{2}{3}$  of the bananas and  $\frac{2}{3}$  of the apples, he had 457 fruits left. How many apples did he have at first?

Ans: (a) \_\_\_\_\_(b) \_\_\_\_\_

10. Jessica had 4500 red buttons and blue buttons. She lost 20% of the red buttons and 60% of the blue buttons. She then found out that 40% of her remaining buttons were red. How many red buttons did she have left?

Ans: \_\_\_\_\_