Extra Content for Foundation GCSE

99. Setting Up and Solving Simultaneous Equations in Real-Life Problems

Practice Questions

1. Two numbers add to 10, and their difference is 4. Find the numbers.

2. The sum of two numbers is 20, and one number is twice the other. Find the numbers.

3. A shop sells apples for £2 each and oranges for £3 each. A customer buys 5 fruits for £12. How many apples and oranges did they buy?

4. A car rental company charges £50 plus £0.20 per mile. Another company charges £30 plus £0.50 per mile. After how many miles will the costs be the same?

5. A farm has cows and chickens. There are 40 animals in total, and they have 100 legs. How many cows and chickens are there?

6. A school buys pencils for £1 each and pens for £2 each. They buy 30 items for £45. How many pencils and pens did they buy?

7. A theatre sells adult tickets for £10 and child tickets for £6. It sells 50 tickets for £420. How many adult and child tickets were sold?

8. A factory makes large and small boxes. There are 50 boxes in total, and their combined weight is 300 kg. If a large box weighs 10 kg and a small box weighs 4 kg, how many of each size were made?

9. A theme park offers single tickets for £20 and family tickets for £40. A total of 80 tickets are sold for £1440. How many single and family tickets were sold?

10. A shop sells coats for £50 and jackets for £30. A total of 120 items are sold for £4800. How many coats and jackets were sold?

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Scenario Questions

1. A café sells tea for £2 and coffee for £3. A customer buys 10 drinks for £25. How many teas and coffees did they buy?

2. Two taxi companies charge differently: Taxi A charges £4 plus £0.60 per mile, and Taxi B charges £5 plus £0.40 per mile. After how many miles will the costs be the same?

3. A zoo has lions and zebras. There are 36 animals in total, and they have 120 legs. How many lions and zebras are there?

4. A cinema sells adult tickets for £8 and child tickets for £5. It sells 60 tickets for £450. How many adult and child tickets were sold?

5. A train company sells first-class tickets for £15 and standard tickets for £8. It sells 100 tickets for £950. How many first-class and standard tickets were sold?

6. A bakery sells muffins for £1 and cakes for £4. It sells 30 items for £60. How many muffins and cakes were sold?

7. A school orders notebooks for £1 and pens for £2. They buy 100 items for £120. How many notebooks and pens were bought?

8. A racing event has motorbikes and cars. There are 50 vehicles, and they have 180 wheels. How many motorbikes and cars are there?

9. A holiday package offers single rooms for £100 and double rooms for £150. A total of 80 rooms are booked for £9200. How many single and double rooms were booked?

10. A music festival sells day passes for £50 and VIP passes for £100. It sells 200 tickets for £12,500. How many day passes and VIP passes were sold?

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Practice Questions

1. Numbers: 7 and 3

2. Numbers: 10 and 10

3. 3 apples and 2 oranges

4. 100 miles

5. 10 cows and 30 chickens

6. 15 pencils and 15 pens

7. 30 adult tickets and 20 child tickets

8. 20 large boxes and 30 small boxes

9. 40 single tickets and 40 family tickets

10. 60 coats and 60 jackets

Scenario Questions

1. 5 teas and 5 coffees

2. 5 miles

3. 24 lions and 12 zebras

4. 50 adult tickets and 10 child tickets

5. 50 first-class tickets and 50 standard tickets

6. 20 muffins and 10 cakes

7. 80 notebooks and 20 pens

8. 20 motorbikes and 30 cars

9. 40 single rooms and 40 double rooms

10. 150 day passes and 50 VIP passes