

EQUATION PROBLEMS

- 1) The sum of three consecutive numbers is 72. What are these numbers?
- 2) If one half of a number is added to one quarter of the same number, the result is 12. Find the number.
- 3) You bought a magazine for \$5 and four erasers. You spent a total of \$25. How much did each eraser cost?
- 4) The perimeter of a rectangle is 28 metres. The base is 6 metres longer than its height. Work out the sides and the area of the rectangle.
- 5) There are 112 people at a party. If there are 18 boys more than girls, how many boys and girls are there at the party?
- 6) Calculate the measures of the three angles of a triangle if the first is three times the second and the second one is twice the third.
- 7) In a triangle, the base is double its height. If the area of the triangle is 144 square metres, calculate the base and the height of the triangle.
- 8) In a right triangle one of the legs measures 7m more than the other leg, and the hypotenuse measures 13m. Calculate its area.
- 9) A farmer has planted one third of his garden with tomatoes, and two fifths with green peppers. He still has 300m² left to plant. What is the total area of the garden?
- 10) Edward is 32 years younger than his father, and 28 years older than his son. How old is each one now if the sum of their ages is 94?
- 11) The addition of two consecutive even numbers is 126. Find the numbers.
- 12) The length of the unequal side of an isosceles triangle is 15 cm. If the perimeter is 46 cm, how long are the other sides?
- 13) A rectangular garden is 6 metres longer than it is wide. If the perimeter is 92 metres, how long is it?
- 14) 16 lbs of Acme Cinnamon was made by combining 12 lbs of Indonesian cinnamon which costs \$19/lb with 4 lbs of Thai cinnamon which costs \$11/lb. Find the cost per lb of the mixture.

15) We want to mix some kilograms of olive oil, which costs €5/kg, with sunflower oil which costs €2.5/kg, to obtain 40 kg of a mixture which costs €3.25/kg. How many kilograms of each type do we have to put into the mixture?

16) I bought 6 pens and I received \$2 change. If I bought 9 pens, I would need \$2.50 more. How much money have I got?

17) Marie tells Patty: "Triple the age that I was three years ago is double the age I will be in 10 years' time." How old is Marie?

18) A father is 42 years old and his son is 17. When will the dad be twice as old as his son?

19) The oldest son will inherit three-fifths of his father's money, the second son will inherit three-fourths of the remainder, and the youngest will be given 18,000€. How much is the total inheritance?

20) A bus is travelling with 48 passengers. When it arrives at the first stop, some passengers get off and 3 get on. At the next stop half the passengers get off and 7 get on. There are now 22 passengers. Find how many passengers got off at the first stop.

21) The admission fee at a museum fair is \$1.50 for children and \$4.00 for adults. On a certain day, 2,200 people visit the museum, and they pay a total of \$5,050. How many children and how many adults visited the museum?

22) The air-mail rate for letters to Europe is 45 cents per half-ounce, and to Africa it is 65 cents per half-ounce. If Shirley paid \$18.55 to send 35 half-ounce letters abroad, how many did she send to Africa?