

2 Lineare Gleichungssysteme

Englische Aufgaben

- 2.1** Write down three pairs of integer values x and y which satisfy the equation $4x - 3y = 8$.

[integer ... ganze Zahl; to satisfy ... erfüllen]

- 2.2** Solve the simultaneous equation I) $3c - 4d = -22$

II) $-2c + d = 3$ means:

"Find a pair (c, d) , so that three times c reduced by four times d equals negative twenty-two and negative two times c plus d is 3."

Solve the simultaneous equation I) $2x - 4y = -14$

II) $x + 6y = 17$ means ...

Complete the sentence according to the given example.

[simultaneous equation ... Gleichungssystem; according to ... entsprechend]

- 2.3** Jean has m one-pence coins and k two-pence coins in her purse. Altogether there are 10 coins and their total value is 14 pence. Work out how many one-pence and two-pence coins she has in her purse.

[purse ... Geldbörse; value ... Wert]

- 2.4** For their geography quiz Nick and Steven had to answer 40 multiple choice questions. The following table gives some information.

	Total points	Number of wrong answers	Number of correct answers
Nick	120	15	25
Steven	160	10	30

For each correct answer they scored c points whereas for each wrong answer they scored w points.

- Use the information in the table for Nick to show that $3w + 5c = 24$.
- Use the information in the table for Steven to find another equation in w and c .
- Solve the equations to work out w and c .
- Max gave only 12 correct answers in the quiz. Calculate the total number of points he scored.

[to score ... erreichen; whereas ... wogegen]

- 2.5** Mr Brown pays \$ 15.50 for a meal and a bottle of apple juice. His meal costs \$ 8.50 more than the bottle of apple juice. Calculate the cost of Mr Brown's meal.

- 2.6** Mrs Lynn is paid 106 € for 6 hours of work at the normal rate of pay and 2 hours at the overtime rate. For 7 hours work, which include 3 hours of work at the overtime rate she earns 99 €. What is Mrs Lynn's normal rate of pay?

[overtime ... Überstunden]

- 2.7** Every first weekend in August a local pop band hold two gigs in their village. Tickets for the gigs cost £ t and CDs cost £ c . At the first gig they sell 134 tickets and 11 CDs for a total of £ 3456.80. The next day they sell 87 tickets and 24 CDs for a total of £ 2510.70. Work out the cost of a ticket and the cost of a CD.