

Problem Solving & Word Problems: Hard Practice Paper 6

Q1. The table shows the ticket prices at a sports club. What is the cheapest way for 2 adults and 4 children to get in, and what does it cost?

Ticket	Price
Adult	£9
Child	£5
Family (2 adults, 3 children)	£26

- A. £38 B. £31 C. £26 D. £33 E. £36

Q2. A shop raises the price of a coat by 20%, then takes 10% off the new price in a sale. The coat now costs £108. What was the original price?

- A. £108 B. £110 C. £100 D. £120 E. £96

Q3. Pipe A alone fills a tank in 6 hours. Pipe B alone fills the same tank in 3 hours. How long do the two pipes take working together?

- A. 2 hours
B. 4 hours 30 minutes
C. 9 hours
D. 3 hours
E. 1 hour 30 minutes

Q4. A mother is 28 years older than her daughter. Five years ago the mother was 5 times as old as her daughter. How old is the daughter now?

- A. 7 B. 10 C. 14 D. 12 E. 15

Q5. A train leaves Ashford at 09:12 and takes 1 hour 48 minutes to reach Brent. Changing there takes 20 minutes, and the bus on to Carly takes another 35 minutes. At what time does the traveller reach Carly?

- A. 11:35 B. 11:55 C. 12:05 D. 11:45 E. 12:15

Q6. A bag holds red and blue counters in the ratio 3 : 5. There are 24 more blue counters than red ones. How many counters are there altogether?

- A. 48 B. 64 C. 72 D. 96 E. 120

Q7. In a group of 40 people, 25 like tea, 18 like coffee and 5 like neither. How many people like both drinks?

- A. 3 B. 8 C. 7 D. 12 E. 5

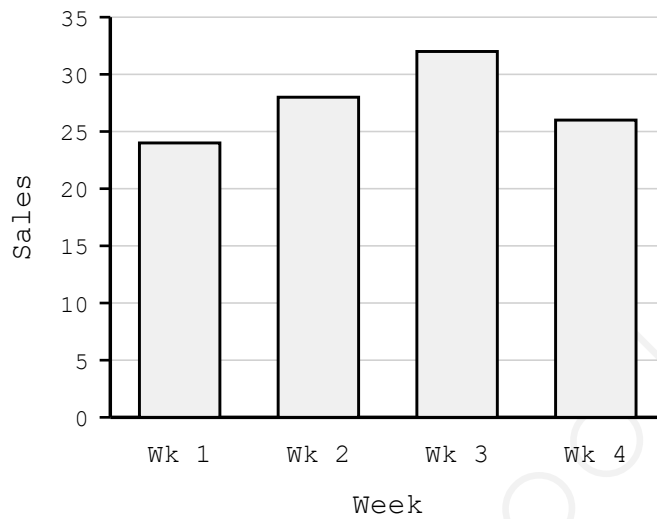
Q8. A car travels 60 km at 60 km/h and then a further 60 km at 30 km/h. What is its average speed for the whole journey?

- A. 90 km/h B. 45 km/h C. 50 km/h D. 30 km/h E. 40 km/h

Q9. Eight people meet, and each person shakes hands once with every other person. How many handshakes take place?

- A. 16 B. 64 C. 56 D. 28 E. 36

Q10. The bar chart shows a shop's sales for four weeks. How many sales are needed in week 5 to bring the mean for the five weeks up to 30?



- A. 36 B. 30 C. 40 D. 34 E. 45

Q11. A rectangular pool measures 8 m by 5 m. A path 1.5 m wide is laid all the way around it. Paving costs £22 for each square metre. What is the cost of the path?

- A. £1,056 B. £924 C. £1,100 D. £880 E. £1,320

Q12. A tank is emptied by a quarter on the first day, and then by a third of what is left on the second day. What fraction of the tank is left after the two days?

- A. $\frac{2}{3}$ B. $\frac{5}{12}$ C. $\frac{1}{4}$ D. $\frac{7}{12}$ E. $\frac{1}{2}$

Q13. Two numbers add up to 96 and they are in the ratio 5 : 7. What is the difference between them?

- A. 40 B. 8 C. 24 D. 12 E. 16

Q14. Shop A sells a coat priced £64 with 25% off. Shop B sells the same coat for £48 with a £5 voucher off. Which shop is cheaper, and by how much?

- A. Shop B, by £5
- B. Shop A, by £5
- C. Shop B, by £11
- D. Shop A, by £16
- E. They cost the same

Q15. A clock gains 3 minutes every hour. It is set to the right time at 08:00. What time will it show when the correct time is 13:00?

- A. 13:03
- B. 12:45
- C. 13:15
- D. 13:30
- E. 12:55