Problem Solving & Word Problems: Hard Practice Paper 4

Q1. I add 5 to a number, multiply the result by 4 and then subtract 12. The answer is 40. What was my number?

A. 3 B. 8 C. 10 D. 13 E. 18

Q2. Five pens and three rulers cost £4.90 altogether. A ruler costs 80p. How much does one pen cost?

A. 40p B. 45p C. 50p D. 55p E. 60p

Q3. The mean of six numbers is 25. Two of the numbers, 20 and 30, are removed. What is the mean of the four numbers that are left?

A. 20 B. 22.5 C. 25 D. 27.5 E. 30

Q4. A number increased by 25% becomes 90. What was the original number?

A. 65 B. 67.5 C. 70 D. 72 E. 75

Q5. A father is 32 years older than his son. In 8 years' time the father will be 3 times as old as his son. How old is the son now?

A. 6 B. 8 C. 10 D. 12 E. 16

Q6. A jug is two thirds full. After 200 ml is poured out it is half full. What is the capacity of the jug?

A. 600 ml B. 900 ml C. 1000 ml D. 1200 ml E. 1500 ml

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Q7. Two numbers are in the ratio 5 : 2 and they differ by 27. What is the smaller number?

A. 9 B. 15 C. 18 D. 21 E. 45

Q8. There are fewer than 100 cakes on a tray. Packed in 4s there are 3 left over, packed in 5s there are 4 left over and packed in 6s there are 5 left over. How many cakes are there?

A. 39 B. 47 C. 53 D. 59 E. 71

Q9. Twelve machines make 3600 parts in 5 hours. How many parts would 8 machines make in 3 hours, working at the same rate?

A. 1200 B. 1440 C. 1800 D. 2160 E. 2400

Q10. A garden measures 20 m by 15 m. A path 2 m wide is laid all the way around the outside of it. What is the area of the path?

A. 140 m² B. 148 m² C. 156 m² D. 164 m² E. 180 m²

Q11. A phone costs £480. A customer pays a deposit of £120 and then 12 equal monthly payments. How much is each monthly payment?

A. £25 B. £30 C. £35 D. £40 E. £50

Q12. Trains leave a station every 18 minutes, with one at exactly 06:00. How many trains leave between 06:00 and 09:00, counting both of these times?

A. 9 B. 10 C. 11 D. 12 E. 18

Q13. Sam has 20 coins, all 10p or 50p, worth £6.80 altogether. How many 50p coins does he have?

A. 8 B. 10 C. 12 D. 14 E. 16

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Q14. The sum of four consecutive whole numbers is 90. What is the smallest of the four numbers?

A. 18 B. 20 C. 21 D. 22 E. 24

Q15. A shop buys a bicycle for £160 and sells it at a profit of 35%. What is the selling price?

A. £195 B. £200 C. £208 D. £216 E. £224

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