# Problem Solving & Word Problems: Medium Practice Paper 7 Answers

| Q# | Answer | Explanation |
|---|---|---|
| 1 | D | Gym A charges 15 × 8 = 120 pounds in monthly fees, and 30 + 120 = 150 pounds altogether. Gym B charges 20 × 8 = 160 pounds. The difference is 160 − 150 = 10, so Gym A is £10 cheaper. |
| 2 | B | Take away Cal's extra 4 first, leaving 24 − 4 = 20 marbles to split into Beth's share, Ali's two shares and Cal's one share. That is 4 equal shares, so 20 ÷ 4 = 5 and Beth has 5 marbles. |
| 3 | E | Every pound is swapped for 1.15 euros, so 40 pounds gives 40 × 1.15 = 46 euros. |
| 4 | E | The small block holds two and a half lots of 100 g, so 3.00 ÷ 2.5 = 1.2 pounds per 100 g. The large block holds four lots, so 4.40 ÷ 4 = 1.1 pounds per 100 g. The saving is 1.20 − 1.10 = 0.1 pounds, which is 10p. |
| 5 | D | The three stages take 25 + 50 + 30 = 105 minutes, which is 1 hour 45 minutes. Counting back that far from the deadline, from 14:15 to 16:00 is 1 hour and 45 minutes. |
| 6 | E | Taking off the first hour leaves 185 − 45 = 140 pounds. At £28 an hour that pays for 140 ÷ 28 = 5 more hours, so the job took 5 + 1 = 6 hours in all. |
| 7 | C | The wall has an area of 4 × 2.5 = 10 square metres. A tile of side 50 cm is half a metre each way, so it covers 0.25 square metres, and 10 ÷ 0.25 = 40 tiles. |
| 8 | B | Add the four scores: 68 + 75 + 82 + 71 = 296. Sharing that total between the four tests gives 296 ÷ 4 = 74. |
| 9 | B | The multiples of 6 between 30 and 50 are 36, 42 and 48. Their digit sums are 9, 6 and 12, so only 36 fits both clues. The number 45 is not in the six times table and 54 is too big. |
| 10 | D | One tin weighs 4.8 ÷ 12 = 0.4 kilograms. Seven of them therefore weigh 0.4 × 7 = 2.8 kilograms. |

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| 11 | A | Round the numbers to make them easy: about 40 footballs at about £13 each. Since 40 × 13 = 520, the total is nearest to £500. |
| 12 | C | The tap pours 60 ÷ 12 = 5 litres a minute. The three barrels hold 3 × 40 = 120 litres, which takes 120 ÷ 5 = 24 minutes. |
| 13 | C | The clock reads 10:20. Adding 40 minutes reaches 11:00, and 5 minutes more makes 45 altogether, so from 10:20 to 11:05 is 45 minutes. |
| 14 | A | The drink is made of 1 + 4 = 5 equal parts. Two litres is 2,000 ml, so one part is 2,000 ÷ 5 = 400 ml, and the squash is one part. |
| 15 | A | The pens come in groups of four, three paid for and one free, and 12 ÷ 4 = 3 such groups. So 3 pens are free and 12 − 3 = 9 are paid for, costing 9 × 1.50 = 13.5 pounds. |

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