Problem Solving & Word Problems: Hard Practice Paper 4 Answers

Q#	Answer	Explanation
1	B	Working backwards, add the 12 to get 52, divide by 4 to get 13, then take away the 5 to get 8.
2	C	The rulers cost 3 × 80p = £2.40, so the five pens cost £4.90 − £2.40 = £2.50, which makes one pen 50p.
3	C	The six numbers total 150 and the two removed total 50, leaving 100 shared between 4 numbers, so the mean is 100 ÷ 4 = 25.
4	D	The new amount is 125% of the original. Since 125% is 90, then 25% is 18 and 100% is 4 × 18 = 72.
5	B	If the son is 8 the father is 40. In 8 years they will be 16 and 48, and 48 is three times 16, so the son is 8 now.
6	D	The 200 ml is the difference between two thirds and one half, which is 4/6 − 3/6 = 1/6 of the jug, so the capacity is 6 × 200 = 1200 ml.
7	C	The difference is 5 − 2 = 3 shares, so one share is 27 ÷ 3 = 9. The smaller number is 2 shares, which is 2 × 9 = 18.
8	D	In every case the cakes are 1 short of a full pack, so adding 1 gives a number divisible by 4, 5 and 6. The smallest such number is 60, so there are 60 − 1 = 59 cakes.
9	B	One machine makes 3600 ÷ (12 × 5) = 60 parts an hour, so 8 machines in 3 hours make 8 × 3 × 60 = 1440 parts.
10	C	The garden and path together measure 24 m by 19 m, an area of 456 m². Taking away the garden's 300 m² leaves 456 − 300 = 156 m².
11	B	After the deposit there is £480 − £120 = £360 left to pay, so each month costs £360 ÷ 12 = £30.
12	C	The three hours are 180 minutes, giving 180 ÷ 18 = 10 gaps between trains. Counting the first train as well gives 11 trains.

myFreeSchool

13	C	If all 20 coins were 10p the total would be £2.00. Each 50p instead of a 10p adds 40p, and the extra is £4.80, so there are 480 ÷ 40 = 12 fifty-pence coins.
14	C	Four consecutive numbers average 90 ÷ 4 = 22.5, so they are 21, 22, 23 and 24, and the smallest is 21.
15	D	10% of £160 is £16, so 35% is £16 + £16 + £16 + £8 = £56. The selling price is £160 + £56 = £216.

myfreeschool