

Problem Solving & Word Problems: Hard Practice Paper

1 Answers

Q#	Answer	Explanation
1	C	Working backwards, multiply by 4 to get 28, add the 8 to get 36, then divide by 3 to get $36 \div 3 = 12$.
2	B	If all 35 animals had 2 feet there would be 70 feet. There are 24 extra feet and each rabbit adds 2 extra, so there are $24 \div 2 = 12$ rabbits.
3	D	Six tests averaging 75 need a total of 450, and her first five total $5 \times 72 = 360$, so she needs $450 - 360 = 90$.
4	B	The shirts cost $3 \times £22 = £66$, so the two ties cost $£96 - £66 = £30$, which makes one tie £15.
5	B	After the increase the price is £300. Reducing £300 by 20% takes off £60, giving £240. The answer is not £250, because the 20% reduction is taken off the larger price.
6	D	If Bob is 6 then Ann is 18. In 6 years they will be 12 and 24, and 24 is twice 12, so Ann is 18 now.
7	C	In both cases the eggs are 2 short of a full box, so adding 2 gives a number divisible by both 6 and 8. That number is 24, so there are $24 - 2 = 22$ eggs.
8	C	If all 8 items were pencils the cost would be £2.00. Each pen instead of a pencil adds 20p, and the extra is 80p, so there are $80 \div 20 = 4$ pens.
9	B	The job takes $6 \times 40 = 240$ tap-minutes, so with 8 taps it takes $240 \div 8 = 30$ minutes.
10	C	After the book two thirds are left, and spending a quarter of that leaves three quarters of two thirds, which is half. Since half is £18, he started with £36.
11	B	The two different sides add to 17 cm and multiply to 60. The pair 12 and 5 works, so the longer side is 12 cm.

12	C	Each day is 8 hours 45 minutes, and 5 days give 40 hours plus 225 minutes, which is 43 hours 45 minutes.
13	C	Taking the extra £20 off the total leaves £100 to split equally, so the shares are £50 and $£50 + £20 = £70$.
14	C	The middle number is $84 \div 3 = 28$, so the numbers are 27, 28 and 29 and the largest is 29.
15	B	The rolls cost $210 \div 6 = 35\text{p}$ each in the small pack and $330 \div 10 = 33\text{p}$ each in the large pack, so the saving is 2p per roll.