

Problem Solving – Set I

Q1. Find the values of the letters A, B, C, E in these squares, given that $D = 2$. The sums of the rows and columns are given, and only the numbers 1, 2, 3, 4 and 5 have been used.

A	B	C	D	E	
			2		
D	E	C			8
B	A	C			12
C	A	D			11
	10	9	12		

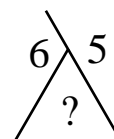
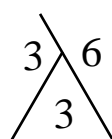
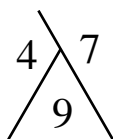
Q2. When 27 is added to a number, n , the result is the same as the result of multiplying n by 10. Find the number, n .

Q3. How many pages does a book have, if in numbering them I use 129 digits ?

Q4. I am thinking of three different numbers; \square , $\cancel{\square}$ and \square . Using the clues given, can you find them ?

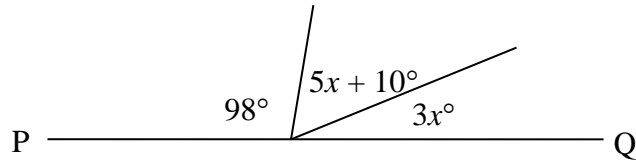
$$\begin{aligned} \square + \square &= \cancel{\square} \\ \cancel{\square} + \cancel{\square} &= \square \\ \square + \cancel{\square} &= 9 \\ \square - \square &= 9 \\ \cancel{\square} \div \square &= 2 \end{aligned}$$

Q5. Find a relationship among the numbers in these examples and use it to find the missing number.

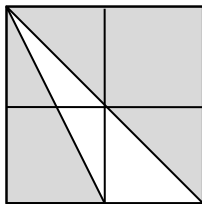


Problem Solving – Set II

Q1. In the diagram PQ is a straight line. Find the value of x.



Q2. What fraction of this square is shaded ?



Q3. I have the same number of 10c, 20c and 50c coins. Their total value is \$6.40. How many of each do I have ?

Q4. Julian's age has the same figures as his Dad's with the digits reversed. The sum of their ages is 99 and Julian is 27 years younger than his Dad. How old is Julian ?

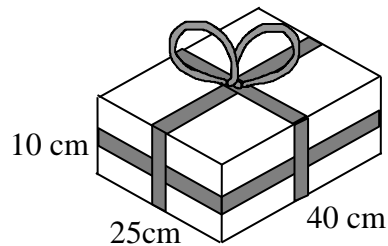
Q5. It is a two-digit number, (greater than 50 ?).
When I divide it by 5, it leaves a remainder of 1.
When I divide it by 4, it leaves a remainder of 1.
It is divisible by 3. What is the number ?

Problem Solving Set III

- Q1. Mr McCarthy is old and ill. For three days he has to take antibiotics every 8 hours, aspirin every 5 hours and tablets for his heart every 10 hours. If he took all three lots at 7am Tuesday, when will he take them all together again ?
- Q2. The perimeter of a rectangle is 26 cm. If the length is 3 cm more than the width, what is the area ?
- Q3. Four (4) bovins are worth 3 wiggles and 2 wiggles are worth 3 fidibs. If 1 fidib costs \$12, calculate the price of 1 bovin.
- Q4. Find two numbers whose sum is 1 and whose difference is $\frac{1}{3}$.
- Q5. Irene went to a record shop. She first spent half her money, then \$20 more. Next she went to a bookshop, where she spent half her remaining money and then again \$20 more. By that time she had no money left. How much did she have when she went to the record shop ?

Problem Solving – Set 4

- Q1. Mandy is wrapping a present. She wants to put ribbon around the box in the way illustrated. How much ribbon does she need if she wants to leave 20cm to tie a bow?



- Q2. Mr and Mrs Kind decided to share \$120 equally between their children for the summer vacation. When the eldest got a holiday job, he divided his share equally between all his brothers and sisters. If each child was given an extra \$4, how many children are there in the Kind family?
- Q3. A maths competition was entered by 70 boys and 80 girls. Prizes were awarded to six (6) boys and 15% of the girls. What percentage of the competitors were prize winners?
- Q4. A lady has only cats and dogs as pets. For tea, each dog eats five (5) biscuits and each cat eats four (4) biscuits. If at tea, they eat 32 biscuits altogether, how many pets does she have?
- Q5. A girl had two pieces of ribbon, one of which was twice as long as the other. To make a bow she cut 15 cm off each piece and found that one was now three times as long as the other. How long was each piece at first?