01 **An aeroplane flies along the four sides of a square field at the speeds of 200, 400, 600 and 800 km/hr. Find the average speed of the plane around the field.**

Your solution here:

02 **A piece of string is 40 centimeters long. It is cut into three pieces. The longest piece is 3 times as long as the middle-sized and the shortest piece is 23 centimeters shorter than the longest piece. Find the length of the shortest piece (in cm).**

Your solution here:

03 **From a number of mangoes, a man sells half the number of existing mangoes plus 1 to the first customer, then sells 1 / 3rd of the remaining number of mangoes plus 1 to the second customer, then sells 1 /4rd of the remaining number of mangoes plus 1 to the third customer and 1 / 5th of the remaining number of mangoes plus 1 to the fourth customer. He then finds that he does not have any mango left. How many mangoes did he have originally ?**

Your solution here:

04 **When 'a' is added to each numerator of $\frac{2}{3}, \frac{x}{3}$ and $\frac{a}{6}$, the sum of the new fractions is 6. Find the value of a × x.** Note : a & x are integers.

Your solution here:

05 **Mr. Arun, a salesman, was paid a basic salary of Rs. 800 every month. The company also provided an incentive scheme which was tied to the sales achieved.**

Number of books sold in a month	Incentive paid for a book sold
1–10	Rs. 20 each
Thereafter	Rs. 30 each

(a) **Mr. Arun earned Rs. 1150 in January. How many books did he sell in January ?**

(b) **The company increased the incentive for the sales of more than 10 books. Under the new scheme. Mr. Arun would have got $2\frac{4}{23}$ % more. What was the increase in incentive paid for sales of more than 10 books ?**

Your solution here: