

**01** Malini opened a book. The product of the 2 page numbers she was facing was 1640. Write down the sum of the 2 page numbers.



Guess the 2 numbers

The 2 numbers must be next to each other. Since the product is 1640, we can start guessing from the number which when multiplied by itself is close to 1640

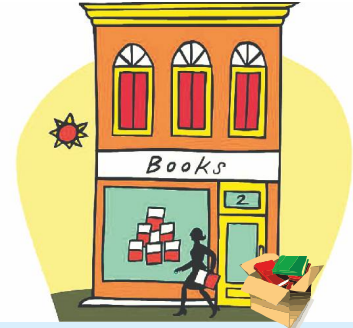
$$40 \times 40 = 1600$$

$$40 \times 41 = 1640 (\checkmark)$$

Therefore, the 2 pages she was facing were pages 40 and 41

$$40 + 41 = 81$$

**02** The number of books can be packed into boxes of 4 and 6. There are less than 45 books in the bookshop. What is the largest possible amount of books in the bookshop ?



Multiples of 4 less than 45 :

4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44

Multiples of 6 less than 45 : 6, 12, 18, 24, 30, 36, 42

Highest common multiple : 36

The largest possible amount of books in the book shop is 36

**03** The number of stools in a warehouse can be put into stacks of 7 or stacks of 9. There are fewer than 150 stools in the warehouse. Find the largest possible number of stools in the warehouse.



Multiples of 7 :

7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98, 105, 112, 119, **126**, ...

Multiples of 9 :

9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99, 108, 117, **126**, ...

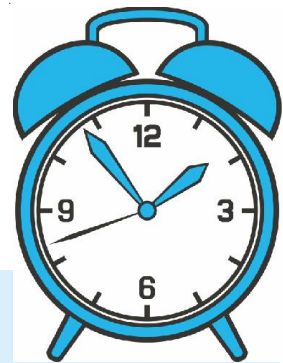
Since 126 is the largest common multiple of 7 and 9 and less than 150, the greatest possible number of stools in the warehouse is 126

**04** Jhonny's current age is a multiple of 5. Next year, his age will be a multiple of 6. What is his age next year. If his age is below 65 years ?



Multiples of 5 below 65 are  
5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55  
Next number to the multiple of 5 must  
be a multiple of 6  
only the next number to 35  
i.e., 36 is a multiple of 6  
Hence age of Jhonny is 36

**05** Druvi set up two alarm clocks, such that one will ring every 4 minutes and another every 5 minutes. If the alarms both ring together at 7:30 pm, what is the next time they will ring together again ?



Multiples of 4 : 4, 8, 12, 16, 20, 24  
Multiples of 5 : 5, 10, 15, 20, 25  
Lowest common multiple : 20 min  
Next time alarm clocks ring together at  
 $7:30 \text{ pm} + 20 \text{ min} = 7:50 \text{ pm}$   
The next time the alarm clocks ring together again is at  
7:50 pm