

A software engineer has the capability of thinking 100 lines of code in five minutes and can type 100 lines of code in 10 minutes. He takes a break for five minutes after every ten minutes. How many lines of codes will he complete typing after an hour?

Ans:

250 lines of codes.

mins no of lines

10 50

5

10 50

5

10 100

5

10 50

5

=250

2. Five farmers have 7, 9, 11, 13 & 14 apple trees, respectively in their orchards. Last year, each of them discovered that every tree in their own orchard bore exactly the same number of apples. Further, if the third farmer gives one apple to the first, and the fifth gives three to each of the second and the fourth, they would all have exactly the same number of apples. What were the yields per tree in the orchards of the third and fourth farmers?

Ans:

11 & 9 apples per tree. Explanation: Let a, b, c, d & e be the total number of apples bored per year in A, B, C, D & E 's orchard. Given that $a + 1 = b + 3 = c - 1 = d + 3 = e - 6$ But the question is to find the number of apples bored per tree in C and D 's orchard. It is enough to consider $c - 1 = d + 3$. Since the number of trees in C's orchard is 11 and that of D's orchard is 13. Let x and y be the number of apples bored per tree in C & d 's orchard respectively. Therefore $11x - 1 = 13y + 3$ By trial and error method, we get the value for x and y as 11 and 9.

3. If $s(a)$ denotes square root of a , find the value of $s(12 + s(12 + s(12 + \dots$ upto infinity?

Ans: 4

Explanation : Let $x = s(12 + s(12 + s(12 + \dots)))$. We can write $x = s(12 + x)$. i.e., $x^2 = 12 + x$. Solving this quadratic equation, we get $x = -3$ or $x = 4$. Sum cannot be -ve and hence sum = 4.

4. If time at this moment is 9 P.M., what will be the time 23999999992 hours later?

Ans: 1 P.M. 24 billion hours later, it would be 9 P.M. and 8 hours before that it would be 1 P.M.

5. Divide 45 into four parts such that when 2 is added to the first part, 2 is subtracted from the second part, 2 is multiplied by the third part and the fourth part is divided by two, all result in the same number.

Ans: 8, 12, 5, 20
Explanation: $a + b + c + d = 45$; $a + 2 = b - 2 = 2c = d/2$; $a = b - 4$; $c = (b - 2)/2$; $d = 2(b - 2)$; $b - 4 + b + (b - 2)/2 + 2(b - 2) = 45$;

6. If on an item a company gives 25% discount, they earn 25% profit. If they now give 10% discount then what is the profit percentage.

Ans: 30%.

7. How many 1's are there in the binary form of $8 \cdot 1024 + 3 \cdot 64 + 3$

Ans : 5