

**QUANTITATIVE ABILITY**

**Numerical Puzzles:**

- 1) Total of 1700 honey bees living in a number of colonies consists of queens and worker bees. For every 99 worker bees there is one queen. The total number of queens is:  
a) 14                      b) 17                      c) 16                      d) 15
- 2) A festival procession had 43 elephants for the morning session. All but 21 elephants left by the noon. How many elephants are left out for the afternoon program?  
a) 22                      b) 20                      c) 21                      d) None
- 3) There are green apples in two baskets L and M. If 20 apples are moved from L to M, then the number of apples in each basket would be the same. If 40 apples are moved from M to L, then the number of apples in L would be four times the number of apples in M. The number of apples in basket L is:  
a) 30                      b) 120                      c) 50                      d) 100
- 4) A number of BMW cars speeding on Auto Bahn (German Freeway) in such a way that two BMWs are in front of a BMW, two BMWs behind a BMW and a BMW between two BMWs. What is the minimum number of BMWs on Autobahn, if all the given conditions are satisfied?  
a) 7                      b) 5                      c) 3                      d) 9
- 5) A livestock vendor has love-birds and rabbits. If the number of heads be 48 and the number of legs equals 140, then the number of love-birds:  
a) 26                      b) 23                      c) 24                      d) 21
- 6) Toys distributed among a group of children and each child received toys equal to one tenth of the total number of children. Had the number of children been half, each child would have got 6 toys. Total how many toys distributed?  
a) 60                      b) 180                      c) 75                      d) 90
- 7) A man planted saplings in such a way that he doubles the planting on each day in comparison with the previous day. If he continued his effort for 150 days until he finished a large area of land, then exactly on which day he completed planting exactly half of the total number of saplings?  
a) 75<sup>th</sup> day              b) 143<sup>th</sup> day              c) 149<sup>th</sup> day              d) 100<sup>th</sup> day

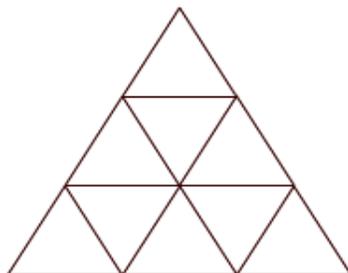
**Averages:**

- 8) Average weight of A, B and C is 60 kg. If A weighs 50 kg and the weight of B is 2 kg less than that of C, then what would be the weight of B?  
a) 65                      b) 67                      c) 66                      d) 64
- 9) The average age of 2 grandparents in a family is 69, average age of 2 parents is 32 and average age of 2 children is 4. What is the average age of the family?  
a) 35                      b) 105                      c) 17.5                      d) 30
- 10) Average weight of 10 bags is 55 kg. A bag is taken away and replaced by a new bag weighs 50 kg. Hence, the average weight of the all bags decreases by 1 kg. The weight of the bag taken away is:  
a) 55 kg                      b) 50 kg                      c) 60 kg                      d) None of these

- 11) The average of 7 numbers is 12. If each of these 7 numbers is multiplied by 2 and then 5 is added to each of these resultant numbers, the new average is:  
a) 19                      b) 27                      c) 29                      d) 24
- 12) A cricket player hits 3 boundaries and 4 sixes and 18 single runs in 9 overs. On an average how many runs he made from a ball, if there is no wide and no balls?  
a) 1.2                      b) 1.5                      c) 2.0                      d) 1.0
- 13) The average weight of 10 chimpanzees in a zoo is increased by 2 kg, when one chimpanzee in the zoo weighing 120 kg replaced by a new chimpanzee. The weight of the new chimpanzee is:  
a) 122 kg                      b) 140 kg                      c) 124 kg                      d) None of these
- 14) Average profit of a stationary shop in 20 days is Rs. 42084. On the 21<sup>st</sup> day shop remains closed. The overall average profit in 21 days is:  
a) 2002                      b) 2010                      c) 2006                      d) 2004

**Numbers:**

- 15)  $8254 + 1364 - 3752 + 2147 - 4561 = ?$   
a) 3463                      b) 5325                      c) 3452                      d) 4637
- 16)  $2500 \times 25 - 60234 = ? + 1232$   
a) 1034                      b) 1223                      c) 1056                      d) 1128
- 17) Find the sum of first 20 natural numbers.  
a) 420                      b) 210                      c) 330                      d) 256
- 18) Find the Least Common Multiple of 4, 5, 6  
a) 45                      b) 120                      c) 60                      d) 24
- 19)  $(1^2 + 2^2 + 3^2 + \dots + 8^2)$  is equal to:  
a) 204                      b) 258                      c) 512                      d) 296
- 20) Find the Highest Common Factor (HCF) of 36, 54, 72  
a) 12                      b) 15                      c) 6                      d) 18
- 21) Find the total number of triangles (any size) in the pic?



- a) 10                      b) 13                      c) 12                      d) 14

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## Answer Key & Explanation:

- 1) b (Ans: 17)
- 2) c (Ans: 21 - All but 21 left means, all elephants left but 21 remained)
- 3) b (Ans: 120 - Do trial and error with answer choices, 30 and 50 are not at all possible, then try with 120, if you get the correct answer as 120, then do not try 100)
- 4) c (Ans: 3)
- 5) a (Ans: 26 - Let's say the L represent birds and R rabbits  
Total 48 heads, therefore  $L + R = 48$  (Bird and Rabbit have one head each)  
Total 140 legs, therefore  $2L + 4R = 140$ , (Bird has 2 legs and Rabbit has 4 legs)  
when you solve it,  $R = 22$  and  $L = 26$ )
- 6) d (Ans: 90)
- 7) c (Ans: 149<sup>th</sup>)
- 8) d (Ans: 64)
- 9) a (Ans: 35)
- 10) c (Ans: 60)
- 11) c (Ans: 29)
- 12) d (Ans: 1.0)
- 13) b (Ans: 140)
- 14) d (Ans: 2004)
- 15) c (Ans: 3452. Let's look at the last digits (unit digit) of each number:  $4 + 4 - 2 + 7 - 1 = 2$  Only answer choice with 2 as unit digit is 3452)
- 16) a (Ans: 1032. Let's look at the last digits (unit digit) of each number)
- 17) b (Ans: 210. Use the quick formula  $n(n+1)/2 = 30(30+1)/2 = 465$ )
- 18) c (Ans: 60. Least Common Multiple is LCM. It is 60)
- 19) a (Ans: 204. Use the quick formula  $n(n+1)(2n+1)/6 = 8(8+1)(2 \times 8 + 1)/6 = 204$ )
- 20) d (Ans: 18. Highest Common Multiple (Factor) is 18)
- 21) c (Ans: 13. Small triangles = 9, Medium size = 3, Large = 1)