Quantitative Aptitude QUESTIONS & ANSWERS

1. A grandfather divides Rs.8200 among 3 sons, 5 daughters and 1 nephew. If each son receives 5 times as much as nephew and each daughter receives 5 times as much as nephew, how much does each son receive?
2. 800
3. 820
4. **1000**
5. 900

Let the share of each nephew be Rs.x

Then, share of each daughter = Rs. (5x);

Share of each son = Rs.(5x).

So, 3 \* 5x + 5 \* 5x + 2 x = 8200

=> 25x + 15x + x = 8200 => 41x = 8200

=> x = 200. Therefore, Share of each son = Rs. (5 \* 200) = Rs.1000

1. A farmer bought an Ox and a cart. If he sells the Ox at 10 % loss and the cart at 20% gain, he will not lose anything; but if he sells the Ox at 5% loss and the cart at 5% gain, he will lose Rs. 10 in the bargain. The amount paid by him was Rs.\_\_\_\_\_\_\_ for the Ox and Rs.\_\_\_\_\_\_\_\_ for the cart.
2. 300, 400
3. 500, 200
4. 600, 100
5. **400, 200**

Let x be the cost price of the Ox and y be the cost price of the cart.

In the first sale there is no loss or profit. (i.e.)

The loss obtained is equal to the gain.

Therefore (10/100) \* x = (20/100) \* y

X = 2 \* y …………………………(1)

In the second sale, he lost Rs. 10. (i.e.) The loss is greater than the profit by Rs. 10.

Therefore (5 / 100) \* x = (5 / 100) \* y + 10……………………….(2)

Substituting (1) in (2) we get

(10 / 100) \* y = (5 / 100) \* y + 10

(5 / 100) \* y = 10

**y = 200**

From (1)

2 \* 200 = **x = 400**

Cost price of Ox = Rs. 400 & the cost price of cart = Rs.200.

1. Virat's average in his first 21 innings was 50. After the 22nd innings, his average was 49. How many runs did he score in his 22nd innings? (Supposing that he lost his wicket in his

22nd innings)

1. 50
2. 49
3. **28**
4. 35

Total score after 21 innings = 21\*50 = 1050

Total score after 51 innings = 22\*49 = 1078

So, runs made in the 51st innings = 1078-1050 = 28

1. A cricketer has a certain batting average for 15 innings. In the sixteenth inning, he scored 108 runs, thereby increasing his average by 6 runs. His new average is :
2. 50
3. 25
4. 12
5. **18**

Let average for 10 innings be x.

Then, 15x + 108/16 = x+6

16x+96 = 15x+108 => x=12

Therefore, New Average = (x+6) = 18 runs.

1. Amar spends 70% of his income. His income is increased by 25% and he increased his expenditure by 10%. Find the percentage increase in his savings.
2. 50%
3. 40%
4. **60%**
5. 30%

Let original income = Rs. 100.

Then, expenditure = Rs.70 and savings = Rs. 30.

New income = Rs.125 & New expenditure = Rs.[110/100 \* 70] = Rs.77

New savings = Rs.[125-77] = Rs.48

Increase in savings = Rs.[48 - 30] = Rs.18

Therefore, Increase% = [18 \* 1/30 \* 100]% => 60%

1. The difference between the ages of two people is 20 years. Fifteen years ago, the elder one was twice as old as the younger one. The present age of the elder person is?
2. 35
3. 25
4. 45
5. **55**

Let the ages be x years and (x+20) years respectively.

Then, (x+20) - 15 = 2(x-15)

=> x+5 = 2x-30

=> x=35

Therefore, present age of the elder person = (x+20) = 55 years.

1. The average salary of the entire staff in an office is Rs 220 per month. The average salary of officers is Rs 560 and that of non-officer is Rs 210. If the number of officer is 17, then find the number of non-officer in the office?
2. 510
3. 560
4. **578**
5. 565

Let the required number of non-officers = a  
 Then, 210a + 560 x 15= 220 (17 + a)  
 or, 220a – 210a = 560 x 17 – 220 x 17 = 15 (560 – 220)  
 or, 10a = 17 x 340;

a = 17 x 34 = 578

1. The average age of students of a class is 19.8 years. The average age of boys in the class is 20.4 years and that of the girls is 19.4 years. The ratio of the number of boys to the number of girls in the class is:
2. 3:2
3. 4:5
4. **2:3**
5. 5:4

 Let the ratio be *k*: 1  
Then, *k* x 20.4 + 1 x 19.4 = (*k* + 1) x 19.8  
(20.4 - 19.8) k = (19.8 - 19.4)

K=0.4/0.6=2:3  
Required Ratio =2: 3

1. The average price of 21 books is Rs. 12 while the average price of 20 of these books is Rs. 10. Of the remaining two books, if the price of one book is 60% more than the price of the other, what is the price of each of these two books?
2. **20 & 32**
3. 20 & 40
4. 32 & 40
5. 40 & 32

Total price of the two books = Rs. [(12 x 21) – (10 x 20)]  
                                                = Rs. (252 - 200) = Rs. 52  
Let the price of one book be Rs.x

The price of the other book = Rs. (x \* 60% of x) = x+ (3/5) x= (8/5) x

So, x+ (8/5) x=52

X=20

The prices of the two books are Rs. 20 and Rs. 32

1. A Church has an average of 640 visitors on Sundays and 232 on other days. The average number of visitors per day in a month of 30 days beginning with a Sunday is
2. 280
3. 290
4. **300**
5. 310

Since the month begins with a Sunday, so there will be five Sundays in the month.

Required Average

= (640x5+232x25 / 30)

= (9000 / 30)

= 300

1. The average age of a husband and his wife was 23 years at the time of their marriage. After five years they had triplets of one year old. Now the husband’s father whose age is 67 is also with them. The average age of the family now is?
2. 19
3. 20
4. **21**
5. 22

Sum of the present ages on husband, wife and child = (23x2+5x2) +1+1+1+67

= 126 years

Required average= = (126/6)

= 21 years.

1. In a semester examination, a girl’s average marks were 83. If she had obtained 20 more marks for his English and 2 more marks for his Social studies, his average would have been 85. How many subjects were there in the examination?
2. 6
3. 8
4. 10
5. **11**

Let the number of subjects = x

Then, Total marks he scored for all subjects = 83x

If he had obtained 20 more marks for his Geography and 2 more marks for his history, his average would have been 85

=> Total marks he would have scored for all subjects = 85x

Now we can form the equation as 85x - 83x = the additional marks of the student = 20 + 2 = 22

2x = 22

X=11

1. The average of a non-zero positive number and its cube is 13 times the number. The number is:
2. 4
3. **5**
4. 9
5. 6

Let the number be r. then,   
(x + x3)/2 = 13x

x3+x=26x  
x3 – 25x = 0 => x = 0 or x=-5 or x = 5, so the number is 5.

1. The average of 8 consecutive numbers is 25.5. The largest of these numbers is:
2. 27
3. 23
4. 25
5. 29

Let the number be x, x+1 ,x+2 ,x+3 ,x+4 ,x+5 , x+6 then,  
{ x + ( x + 1 ) + ( x + 2 ) + ( x + 3 ) + ( x + 4 ) + ( x + 5) + ( x + 6 ) +( x + 7) }/8 = 25.5  
or 8x + 28 = 204

=> x = 22  
so the largest number is x+7 = 22+7 = 29

1. A bowler whose bowling average is 14.4 runs per wicket takes 5 wickets for 28 runs and thereby decreases his average by 0.4. The number of wickets taken by him till the last match was:
2. 100
3. **105**
4. 95
5. 90

Let the number of wickets taken till the last match be x then,   
(14.4x + 28)/(x + 5) = 14  
14.4x + 28 = 14x + 70

=> x = 105

1. The ratio between the present ages of A and B is 5:8. If B is 9 years old than A, what will be the ratio of the ages of A and B after 4 years?
2. 1: 3
3. 5: 8
4. **2: 3**
5. 4: 7

Let A's age and B's age be 6r years and 7x years respectively  
then, 8x – 5x =9

=> x = 3  
so required ratio = (5x + 3) :( 8x + 3)

= 18: 27 = 2: 3

1. Four years ago the ratio of the ages of Earl and Simon was 3:4. Six years hence the ratio of their ages will be 5:6. What is Simon's age at present?
2. 21
3. **31**
4. 25
5. 35

Let the ages of Earl and Simon 6 years ago be 6x and 5x years respectively  
then, [(3x + 4) + 6] / [(4x + 4) + 6] = 5/6   
on solving above we get x = 5  
so Simon's present age = (5x + 6) = 31 years

1. Sean's grandfather was 10 times older to him 14 years ago. He would be 3 times of his age 8 years from now. Eight years ago, what was the ratio of Sean's age to that of his grandfather?
2. **25/126**
3. 20/128
4. 25/128
5. 20/126

16 years ago, let Sean's age = x years

Grandfather's age = 10x years  
after 8 years from now

Sean's age = (x+14+8) years and grandfathers' = (10x+14+8) years  
so 10x + 22 = 3(x + 22)

=> x = 44/7   
8 years ago,

Sean's age/grandfather's age = (x+8)/(10x+8) = 25/126

1. A lady was asked to state her age in years. Her reply was, "take my age three years hence, multiply it by 3 and then subtract three times my age three years ago and you will know how old i am" what was the age of the person?
2. 16
3. **32**
4. 18
5. 20

Let the present age of the lady be x years.  
Then, 4(x + 4) - 4(x - 4) = x  
=> x = 32 years

1. Father is aged 3 times more than his son Brook. After 8 years he would be two and a half times of Brook's age. After 8 years, how many times would he be of Brook's age?
2. 3
3. 4
4. 5
5. 2

Let Brook's present age be x years.

Then, father’s present age = (x + 3x) years = 3x years.  
So (4x + 8) = (5/2) (x + 8)

=> x = 8  
 required ratio = (4x + 16)/(x + 16) = 48/24 = 2 times