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#### BOOST UP PDFS | Quantitative Aptitude | Problems on Ages (Hard Level Part-1)

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1. Rita's present age is four times her daughter's	a. 6
present age and two-third of her mother' s present	b. 18
age. The total of the present ages of all of them is 154	c. 8
years. What is the difference between Rita's present	d. 4
age and Rita's mother's present age ?	e. Cannot be determined
a. 28 yr	4. The sum of ages of committee members (including
b. 43 yr	juniors and seniors) is 360 years. The total ages of
c. 32 yr	juniors and seniors are in the ratio 2:1 and the ages of
d. Cannot be determined	vice president and president are in the ratio 5:7.What
e. None of these	will be the age of president of the committee?
2. The average age of Akhil, Parag and Monty is	a. 60
24years. 2 year ago, average age of Akhil and Monty	b. 77
was 23yrs. 2yrs hence average age of Parag and	c. 75
Monty is 26 years. Find the present age of Monty?	d. 70
a. 26	e. Data inadequate
b. 16	5. Difference between the ages of anitha and rahul is
c. 36	same as the difference between the ages of rahul and
d. 46	karthik. If the difference between the ages of anitha
e. None of these	and karthik is 8 years. If their sum of age 48, then
3. The present age of Leelavati is one-fourth that of	what are the ratio of ages of three people?
her father. After 6 years the father's age will be twice	a. 5:3:5
the age of Lokesh. If Lokesh celebrated fifth birthday	b. 5:3:3
8 years ago. What is Leelavati's present age?	c. 5:3:4

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#### d. 5:6:4

e. None of these

6. Bhanu's brother is 3 years elder to him. His father was 28 years of age when his sister was born. His mother was 26 years of age when he was born. His sister was 4 years of age when his brother was born, the ages of Bhanu's father and mother respectively when his brother was born?

- a. 32 years and 23 years
- b. 35 years and 29 years
- c. 38 years and 29 years
- d. 35 years and 33 years
- e. 28 years and 26 years

7. Raman's present age is three times his daughter's and 9/13 of his mother's present age. The sum of the present ages of all three of them is 125 yr. What is the difference between the present ages of Raman's daughter and Raman's mother?

- a. 45 yr.
- b. 40 yr.
- c. 50 yr.
- d. Cannot be determined
- e. None of these

8. The ratio of present ages of Akhil and Anil is 7 : 9 and present age of Amit is equal to the average ages of Akhil and Anil after 2 years. If the ratio of present age of Amit and age of Anil after four years is 6 : 7 then what will be the ratio of age of Akhil after four years to that of present age of Amit?

- a. 13 : 14
- b. 14 : 13
- c. 6 : 7
- d. 7 : 6
- e. None of these

9. In three more years, Mridul's grandfather will be six times as old as Mridul was last year. When Mridul's present age is added to his grandfather's present age, the total is 68. How old is each one now?

- a. 10 years
- b. 11 years
- c. 15 years
- d. 14 years
- e. None of these

10. Meetali and Neeraj got married 30 years ago. Meetali is 4 years younger than Neeraj. When they got married the difference between 2 times of the Meetali's age and 1.5 times of the Neeraj's age was 5 years. Find the present age of Meetali and Neeraj.

- a. 42, 46
- b. 48, 52
- c. 55, 59
- d. 60, 64
- e. None of these

11. The ratio of the ages of Esha and her mother is 1 : 4 and the ratio of the ages of Esha's mother and her brother is 9 : 1. If Esha's brother is 5 years younger than Esha. What will be the age of Esha's mother after 4 years?

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a. 36 years	age of all the three of them is 24 years. How many
b. 40 years	years is it since the couple got married?
c. 45 years	a. 5 years
d. 50 years	b. 6 years
e. None of these	c. 7 years
12. In a family, a couple has a son and daughter. The	d. 8 years
age of the father is three times that of his daughter	e. 9 years
and the age of the son is half of his mother. The wife	15. If the ages of P and R are added to twice the age
is nine years younger to her husband and the brother	of Q, the total becomes 59. If the ages of Q and R are
is seven years older than his sister. What is the age of	added to thrice the age of P, the total becomes 68 and
the mother?	if the age of P is added to thrice the age of Q and
a. 40 years	thrice the age of R, the total becomes 108. What is the
b. 45 years	age of P? Success Pantner
c. 50 years	a. 19 years
d. 60 years WWW.exompunoif.in	b. 15 years
e. 65 years	c. 17 years
13. A family consists of paternal grandparents,	d. 12 years
parents and three grandchildren. The average age of	e. None of these
the grandparents is 70 years, that of the parents is 40	16. The ages of the members of a joint family of eight
years and that of the grandchildren is 10 years. What	people added up to 231 years. Three years later, one
is the average age of the family?	member died at the age of 60 years and a child was
a. 34(4/7) years	born at the same time when person was died. After
b. 35(5/7) years	another three years, one more member died, again at
c. 36(6/7) years	60, and a child was born at the same time when
d. Cannot be determined	person was died. The current average age of this
e. None of these	eight-member joint family is nearest to?
14. The average age of Manoj and Rima at the time of	a. 22 years
their marriage was 25 years. A son was born to them	b. 25 years
two years after their marriage. The present average	c. 20 years
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#### d. 23 years

#### e. 24 years

17. Ravi has three children: two daughters and one son. All were born on the same date in different years. The sum of the ages of the two daughters today is smaller than the age of the son today, but a year from now the sum of the ages of the daughters will equal the age of the son. Three years from today, the difference between the age of the son and the combined ages of the daughters will be?

- a. 1
- b. 2
- c. 3
- d. –2
- e. –1

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18. The average age of board of directors of a company having 15 directors was 48 years. When a director aged 56 resigned from the board of directors another director died on the same day. A new director joined board of directors aged 36. Next year the average age of all 14 directors was found to be 48 years. The age of late director at the time of his death was?

- a. 48 years
- b. 42 years
- c. 45 years
- d. 40 years
- e. None of these

19. Eight years ago, Poorvi's age was equal to the sum of the present ages of her one son and one daughter. Five years hence, the respective ratio between the ages of her daughter and her son that time will be 7:6. If Poorvi's husband is 7 years elder to her and his present age is three times the present age of their son, what is the present age of the daughter?

- a. 15 years
- b. 23 years
- c. 19 years
- d. 27 yearse. 13 years

20. 15 years ago the average age of a family of four members was 40 years. Two children were born in this span of 15 years. The present average of the family remains unchanged. Among the two children who were born during the 15 years, if the older child at present is 8 years older than the younger one, what is the ratio of the present age of the older child to the present age of the younger Child?

- a. 9:4
- b. 7:3
- c. 7:6
- d. 7:4
- e. 9:5

21. There were 15 students in a class. When the ages of a teacher and anew boy are added, the average age of the class increases by 10 per cent while it remains the same when only the age of a boy is added. If the

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#### teacher's age is eight more than twice the age of the new boy, then find the initial average age of the class. a. 15.4 years b. 16.5 years or decrease by? c. 11.4 years d. Can't be determined b. increase by 0.5 year e. None of these c. decrease by 0.5 year 22. Four times the difference in ages of C and A is one d. increase by 1 year more than the age if B. Percentage of A's age to C's e. decrease by 1 year age is 75%. If ratio of B's age 5 years hence to C's age 1 year ago is 4 : 3. Find the average of ages A and C? a. 20 b. 19 c. 12 d. 14 e. 8 23. When the couple was married the average of their a. 50 years ages was 25 years. When their first child was born, b. 22 years the average age of family became 18 years. When c. 10 years their second child was born, the average age of the d. 44 years e. None of these family became 15 years. Find the average age of the couple now? a. 31 b. 27 c. 28 d. 29 e. 30 24. When a couple was married, their average age was 22 years. When their first child was born, the average age of all the three became16 years. When time of marriage? their second child was born, the average of all 4 became 15 years. Find the average age of couple at the time when their second child was born.

a. 20 b. 28 c. 30 d. 32 e. 25 25. The average age of a group of 20 men is 22 years. If two men whose age are 24 and 31 years respectively join the group, the average age of new group increase

a. No increment, no decrement

26. The present age of a son is 40% of his father age. And the age of his mother is 220% of his age. The average age of three members is 38. Find the present age of mother. Portner

27. The average age of a husband-wife and their son was 42 years. The son got married and exactly after 1 year a child was born to them. When the child became 5 years old, the average age of the family became 36 years. What was the age of bride at the

a. 30yrs b. 27yrs c. 25yrs d. 22yrs e. None

28. A says, "If you reverse my own age, the figures represent my Brother's age. He is, of course, senior to

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## me and the difference between our ages is oneeleventh of their sum." Then A's brother's age is?

a. 45 b. 54 c. 25 d. 52 e. None

29. If the two digits of the age of Mr. X are reversed then the new age so obtained is the age of his wife. 1/11 of the sum of their ages is equal to the difference between their ages. If Mr. X is elder than his wife then find the difference their ages.

a.10yrs b.13yrs c.12yrs d.9yrs e. None of these 30. The average age of Mano and Gautham is 35 years. If Karthik replaces Mano, the average age becomes 32 years and if Karthik replaces Gautham, then the average age becomes 38 years. If the average age of Sharmi and Isha be half of the average age of Mano, Gautham and Karthik, then the average age of all the five people is?

a. 23 b. 20 c. 28 d. 32 e. None of these

31. The product of the present ages of Sakshi and Nidhi is 320. Eight years from now, Sakshi's age will be three times the age of Nidhi. What was the age of Sakshi when Nidhi was born?

- a. 40 years
- b. 32 years
- c. 48 years
- d. 36 years
- e. 26 years

32. The ages of the members of a joint family of eight people added up to 224 years. Three years later, one

member died at the age of 56 years and a child was born at the same time when person was died. After another three years, one more member died, again at 56, and a child was born at the same time when person was died. The current average age of this eight-member joint family is?

- a. 22 years
- b. 25 years
- c. 20 years
- d. 23 years
- e. 24 years

33. If the ages of 'A' and 'C' are added to twice the age of B, the total becomes 59. If the ages of 'B' and 'C' are added to thrice the age of A, the total becomes 68 and if the age of A is added to thrice the age of B and thrice the age of C, the total becomes 108. What is the age of A?

- a. 19 years
- b. 15 years
- c. 17 years
- d. 12 years
- e. 21 years

34. A couple has a son and a daughter. The age of the father is five times that of his son and the age of the daughter is half of her mother. The husband is ten years older to his wife and his son is ten years younger than the daughter. What is the age of the father?

a. 45 years

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e. 35 years

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has been no other change in the family structure and	++. A person was asked
all the people are alive, what is the difference in the	reply was, "Take my ag
age of the daughter and the daughter in law?	it by 3 and then subtra
a. 18 years	years ago and you will
b. 20 years	was the age of the persor
c. 22 years	a. 18 years
d. 24 years	b. 20 years
e. None of these	c. 24 years
42. The sum of the present ages of Arun and Nithin is	d. 32 years
9 times the difference of the age of Arun and Nithin.	e. 36 years
Arun is elder than Nithin. 6 years hence, their total	45. At the time of birth
ages will be <mark>12 tim</mark> es <mark>the</mark> difference of their ages.	age was 48 years older t
What is the present age of Arun who is elder than	his Grandmother was 45
Nithin?	Difference between the
a. 18 years b. 12 years c. 24 years d. 28 years	cousin is 4 years. After
e. 20 years	these people is 49. At the
	age of Harish grandmoth
43. 5 years ago, the age of the father is 3 times the age	a. 58 years
of his son. 7 years hence, the age of the father and his	b. 60 years
son is in the ratio of 19:9. The average Present age of	c. 71 years
son is in the ratio of 19:9. The average Present age of the father, mother, son and daughter is 30. The	c. 71years d. 65 years
son is in the ratio of 19:9. The average Present age of the father, mother, son and daughter is 30. The difference between the age of the mother and her	c. 71years d. 65 years e. None of these
son is in the ratio of 19:9. The average Present age of the father, mother, son and daughter is 30. The difference between the age of the mother and her daughter is 30. Then find the present age of the	<ul> <li>c. 71years</li> <li>d. 65 years</li> <li>e. None of these</li> <li>46. The ratio between the setween the</li></ul>
son is in the ratio of 19:9. The average Present age of the father, mother, son and daughter is 30. The difference between the age of the mother and her daughter is 30. Then find the present age of the daughter?	<ul> <li>c. 71years</li> <li>d. 65 years</li> <li>e. None of these</li> <li>46. The ratio between the set of t</li></ul>
son is in the ratio of 19:9. The average Present age of the father, mother, son and daughter is 30. The difference between the age of the mother and her daughter is 30. Then find the present age of the daughter? a. 10 years	<ul> <li>c. 71years</li> <li>d. 65 years</li> <li>e. None of these</li> <li>46. The ratio between the set of t</li></ul>
<ul> <li>son is in the ratio of 19:9. The average Present age of the father, mother, son and daughter is 30. The difference between the age of the mother and her daughter is 30. Then find the present age of the daughter?</li> <li>a. 10 years</li> <li>b. 14 years</li> </ul>	<ul> <li>c. 71years</li> <li>d. 65 years</li> <li>e. None of these</li> <li>46. The ratio between the</li></ul>
<ul> <li>son is in the ratio of 19:9. The average Present age of the father, mother, son and daughter is 30. The difference between the age of the mother and her daughter is 30. Then find the present age of the daughter?</li> <li>a. 10 years</li> <li>b. 14 years</li> <li>c. 18 years</li> </ul>	<ul> <li>c. 71 years</li> <li>d. 65 years</li> <li>e. None of these</li> <li>46. The ratio between the set of the set of</li></ul>
<ul> <li>son is in the ratio of 19:9. The average Present age of</li> <li>the father, mother, son and daughter is 30. The</li> <li>difference between the age of the mother and her</li> <li>daughter is 30. Then find the present age of the</li> <li>daughter?</li> <li>a. 10 years</li> <li>b. 14 years</li> <li>c. 18 years</li> <li>d. 16 years</li> </ul>	<ul> <li>c. 71years</li> <li>d. 65 years</li> <li>e. None of these</li> <li>46. The ratio between the set of t</li></ul>
<ul> <li>son is in the ratio of 19:9. The average Present age of the father, mother, son and daughter is 30. The difference between the age of the mother and her daughter is 30. Then find the present age of the daughter?</li> <li>a. 10 years</li> <li>b. 14 years</li> <li>c. 18 years</li> <li>d. 16 years</li> <li>e. None of these</li> </ul>	<ul> <li>c. 71years</li> <li>d. 65 years</li> <li>e. None of these</li> <li>46. The ratio between the set of t</li></ul>

other change in the family structure and 44. A person was asked to state his age in years. His e three years hence, multiply act three times my age three know how old I am." What n?

> of Harish, his Grandfather's han his cousin Krishna and 5 years older than his brother. ages of his brother and his 10 years, the average ages of e time of his birth, what is the her?

> twelve years after the age of rs hence the age of preethi is age of keerthi is thrice the age ge of keerthi after 6 years?

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#### d. 16 years

#### e.None of these

47. Five years ago, the average age of the family which consists of four members was 40 years. If two people are added in the family and the average age of the family remains same today. If the ages of the new family members differ by 4 years, what is the age of the Elder one between the two?

a. 28 yrs b. 32 yrs c. 36 yrs d. 24 yrs e. None

48. If the average age of a class is 15 (including the age of the teacher); that of the boys is 10 and if the age of the teacher is 13 more than the average age of the girls , then what is the average age of the girls, given that the number of boys and girls is the same?

a. 11 years

- b. 12 years
- c. 13 years
- d. 16 years
- e. None of these

49. Mr. Sunil is 5 times more aged than his son. If after 10 years, he would be 5 times of son's age, then further after 10 years, how many times he would be of his son's age?

- a. 4 times
- b. 12/5 times
- c. 7 times
- d. 13/3 times
- e. 8 times

50. The ratio of present age of Ramesh and Kavi is 5: 6. Silambu is 5 years elder than Kavi. Sum of the present ages of three of them is 56 years. Find the age of Janvi after 3 years, if the present age of Janvi is 2 times the present age of Ramesh?

- a. 31 years
- b. 29 years
- c. 33 years
- d. 35 years
- e. None of these

#### Answer Key with Solution

Your Success Partner
Solution (1-50)
1.Adt.exampundit.in
Let Rita's present age $= x yr$
Rita's daughter age = $x/4$ yr
Rita's mother age = $3x/2$ yr
= x + x/4 + 3x/2 = 154
=>(4x + x + 6x)/4 = 154
=> 11x/4 = 154
=> x = 56
Rita's mother age = $3/2 * 56 = 3 * 28 = 84$ yr
Difference between Rita's age and her mother's $age = 84$
-56 = 28 yr.
2. A
Given, average age of Akhil, Parag and Monty = 24 yrs
Total age of Akhil. Parag and Monty = $24 \times 3 = 72$ yrs

....(1)

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2yrs ago, average age of Akhil and Monty = 23	Rahul =16
2yrs ago, total age of Akhil and Monty = 46	Karthick+8+16+karthick=48
Present total age of Akhil and Monty = $50 \dots (2)$	2 karthick=24
2yrs hence, average age of Parag and Monty $= 26$	Karthick=12, so anitha=20
2yrs hence, total age of Parag and Monty $=$ 52	Anitha: karthik:rahul=5:3:4
Present total age of Parag and Monty = $48$ (3)	6. A
From equation 1, 2 and 3	Age of father when Bhanu's brother was born = 28 + 4 = 3
Present age of Monty is 26 years.	Age of mother when Bhanu's brother was born = 26 – 3 =
3. C Let present age of Leelavati is P, then Father's age = 4P 6 years hence, father's age = 4P+6 2 (Age of Lokesh) = 4P+6 Age of Lokesh = 2P+3 Present age of Lokesh = 2P+3-6 = 2P-3 Lokesh celebrated his 5th birthday 8 years ago So, Present age of Lokesh is $5+8 = 13$ years 2P-3 = 13 2P = 16 P = 8 years	7. C Let Raman's present age = x yr. Raman's daughter age = $x/3$ yr. Raman's mother age = $13x/9$ yr. $\Rightarrow x + x/3 + 13x/9 = 125$ $\Rightarrow 25x = 125 * 9$ <b>moundimentions</b> $\Rightarrow x = 45$ yr. Raman's daughter age = $45/3 = 15$ yr. Raman's mother age = $(13 * 45)/9 = 65$ yr. Difference between Raman's mother and daughter age = 65 - 15 = 50 yr.
P = 8years. 4. E	8. A
Data inadequate because number of committee members and numbers of senior and junior is not given <b>5.</b> C	Let the age of Akhil and Anil be 7x and 9x Amit 's age= $(7x+2+9x+2)/2=8x+2$ Given $(8x+2)/(9x+4)=6/7$ =>x=7
Anitha – rahul =rahul – karthik	Akhil=35
Anitha $+$ karthik $= 2$ rahul	Amit=42
Anitha- karthik= 7	Anil=45
Anitha+ rahul +karthik=48	Required ratio=(35+4)/42=39/42=13:14
2rahul +rahul=48	9. B Page 10 of 18

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Let Mridul's present age be "m" and Grandfather's	Meetali's present age = $26 - 4 + 30 = 52$
present age be "g".	Neeraj' present age $= 26 + 30 = 56$
Then,	11. B
m + g = 68(i)	Esha : her mother $= 1 : 4$
Mridul's age "last year" was m – 1	Her mother : Her brother = $9:1$
His grandfather's age "in three more years" will be $g + 3$	Esha : Her mother : Her brother $= 9 : 36 : 4$
The grandfather's "age three years from now" is six times	Accoding to the question,
Mridul's "age last year".	9x - 4x = 5
i.e., $g + 3 = 6(m - 1)$ (ii)	$5\mathbf{x} = 5$
Using equation (i) and (ii), we have:	x = 1
=> g + 3 = 6m - 6	Esha mother age after 4 years = $36 \times 1 + 4 = 40$ years
=> g + 3 = 6(68 - g) - 6 ['.'m = 68 - g]	12. D
=> g + 3 = 408 - 6g - 6	Let the mother age be y years.
=> g + 3 = 402 - 6g	So, The age of father = $(y + 9)$ years
=>g+6g=402-3 U. examplination	and, The age of son = $y/2$ years
=>7g=399	ATQ,
=> g = 57	y + 9 = 3(y/2 - 7)
Since, $m + g = 68$ ,	=> y + 9 = (3y - 42)/2
Then, $m = 11$	=> 2y + 18 = 3y - 42
.'. Mridul is presently 11 years old.	=> y = 60 years
10. E	13. B
Before 30 years, Neeraj's age = $x$ years, Meetali's age = $x$	The average age of the grandparents is 70 years. So, the
- 4 years	total age of the grandparents = $70 \times 2 = 140$ years
According to the question,	The average age of the parents is 40 years. So, the total
2(x-4) - 1.5x = 5	age of the parents = $40 \times 2 = 80$ years
2x - 8 - 1.5x = 5	The average age of the grandchildren is 10 years. So, the
0.5x = 5 + 8	total age of the grandchildren = $10 \times 3 = 30$ years
0.5x = 13	$\therefore$ The total age of the family members = $140 + 80 + 30$
x = 26	= 250 years.

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### **BOOST UP PDFS | Quantitative Aptitude | Problems on Ages** (Hard Level Part-1)

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	After another three years total age of family = $195 - 60 + 60$
:. The average age of the family = $250 / 7 = 35(5/7)$	$8 \times 3 = 159$ years
14. D	Average age $\approx 20$ years
Given, average age of Manoj and Rima is 25 years.	17. D
=> Sum of ages of Manoj and Rima = 50 years	one year from now, D+d=s
Let the number of years since they got married be x	two years after that, $D+2+d+2=s+2$
years.	D+d-s=2-4=-2
Given, child was born after 2 years of marriage.	18. B
.'. Age of child = $(x - 2)$ years	Before Death = $48*15 = 720$
Now,	The age of late director at the time of his death
Sum of ages of three members:	720 - (56 + x) + 36 + 14 = 672
50 + x + x + (x - 2) = 48 + 3x	X = 42
And, given, present average age of all the three of them	19. Bitown Success Partner
is 24 years.	P - 8 = S + D - (1)
So, $48 + 3x = 24 * 3 \cup U$ . example of the second	6D + 30 = 7S + 35(2)
=>48+3x=72	$\mathbf{H} = 7 + \mathbf{P}$
=> 3x = 24	H = 3S
$\Rightarrow x = 8$ years	3S = 7 + P - (3)
	Solving eqn (1),(2) and (3) D = 23
15. D	20. B
P + R + 2Q = 59(i)	15 years ago Total age of a family of four members =
Q + R + 3P = 68(ii)	160
P + 3Q + 3R = 108(iii)	Sum of the Present age of a family of four members =
From $3 \times (ii) - (iii)$	160 + (15*4) = 220
P = 12 years	Sum of the Present age of a family of six members =
16. C	40*6 = 240
Total age of family = 231 years	x+x+8 = 20
Three years later total age of family = $231 + 8 \times 3 - 60 =$	x=6
195 years	
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Present age of the older child to the present age of the

younger Child = 14:6 = 7:3

#### 21. C

Let initial average age = x years After adding age of boy, avg remains same So, boy's age = x years  $\therefore$  Teacher's age = 2x + 8According to question,

 $\frac{15x + x + 2x + 8}{17} = 1.1x$  $\Rightarrow 18x + 8 = 18.7x$ 

 $\therefore x = 11.4$  Years (approx)

#### 22. D

4 (C-A) = B + 1A/C \* 100 = 75

(B+5)/(C-1) = 4/3

Solve

A = 12, C = 16 = Avg = 12 + 16/2 = 28/2 = 19

#### 23. D

Sum of ages of couple = 25\*2 = 50When 1st child born, total age of 3 = 18\*3 = 54 years At this time the child's age was 0, so age of father and mother would have increased by same. So increased by 2 years each. So 50+2+2=54Now when 2nd child born, total age of 4 = 15\*4 = 60So this time second child's age = 0 and age of father, mother and first child would have increased by same. So increased by 2 each such that 54 + 2+2+2 = 60So now this time (after 4 years from age 50), total age of couple is 50+4+4 = 58So average = 29 years **24. B**  At the time of marriage total age of couple=44 when 1st child is born total age of three=16\*3=48Difference=48-44=4 years (Child is of 0 years hence this is the sum of age incrase of couple) When second child is born sum of age=4\*15=60 years => increase of 12 years after first child, means age of husband, wife and first child increased by 4 years each. SO increase in husband and wife total age = 8 years total increase =4+8=12total age=44+12=56; average=56/2=28 years 25. B When 2 new people join if the sum of their age is 44 then the average will not change, but the sum of age of new people is 55 i.e increase of 11 hence avg increases by 11/22=0.5 years. 26. D Son= 40% of father. F:S=5:2Mother=220% of son=11/5M:S=11:5 make F:M:S =25:22:10 avg=(25+22+10)/3=19 19=38 1=2 =>22=44 27. C F+M+S=42\*3=126 The age of family after 6 years =36\*5=180

The age of bride after 6 years=180-(126+18+5)

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=180-149==>31yrs Age of bride at the time of marriage=31-6=25yrs. 28. B From option 54-45=1/11(45+54) 9=9 Condition satisfied. 29. D Let the two digit no be 10x+y,and reverse is 10y+x (10x + y + 10y + x) / 11 = 10x + y - 10y - x $\mathbf{x} + \mathbf{y} = 9\mathbf{x} - 9\mathbf{y}$ x/y = 5/4. 32. C Then Diff of two number is (10x + y) - (10y - x)= 9x - 9ySubstitute x and y here. = 9(5-4)=9 yrs. **30.** C M+G=35\*2=70 33. D K+G=32\*2=64 K+M=38\*2=76 Then M+G+K=(70+64+76)/2=105.Average of M,G and K=105/3=35 34. B Then (S+I)/2=35/2 Average of all=(105+35)/5=140/5=28. 31. B

Sakshi's age × Nidhi's age = 320  $S = \frac{320}{N}$ By question,  $\Rightarrow S + 8 = (N + 8)3$   $\Rightarrow S - 3N = 16$   $\Rightarrow \frac{320}{N} - 3N = 16$   $\Rightarrow 3N^{2} + 16N - 320 = 0$   $\Rightarrow N(3N + 40) - 8(3N + 40) = 0$   $\Rightarrow (N - 8)(3N + 40) = 0$   $\therefore Nidhi's age = 8$ And Sakshi's age =  $\frac{320}{N} = \frac{320}{8} = 40$   $\therefore Sakshi was 32 years old when Nidhi was born.$ 2. C

Total age of family = 224 years Three years later total age of family = 224 + 8 × 3 - 56 = 192 years After another three years total age of family = 192 - 56 + 8 × 3 = 160 years ∴ Average age = 20 years

A + C + 2B = 59 .....(i) B + C + 3A = 68 .....(ii) A + 3B + 3C = 108 .....(iii) From 3 × (ii) – (iii) A = 12 years

The ratio of age of father and son =  $5 : 1 \Rightarrow (5x, x)$ The age of daughter = (1/2)\*mother's age F = M + 10M = 5x - 10D = (5x - 10)/2S = D - 10Page 14 of 18

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X = [(5x - 10)/2] - 10	$\Rightarrow x = (6/5) * (x - 8)$
X = [5x - 10 - 20]/2	=> 5x = 6x - 48
2x = 5x - 30	x = 48.
3x = 30	Punit's brother age at the time of his marriage = $(x - 8)$ –
X = 10	10 = (x - 18) = 30 years.
The age of the father $= 5x = 50$ years	:: Punit's brother present age = $(30 + 8) = 38$ years.
35. A	38. B
Let the ages of the 3 brothers in completed years be x, y,	Let the present ages of Rakesh and Reena be 6x years
Ζ.	and 5x years respectively.
$x^2 + y^2 + z^2 = 325$ (i)	(6x + 4)/(5x + 4) = 20/17
Clearly, the three numbers have to be less than 18 since	=> 102x + 68 = 100x + 80
the square of 18 itself is 324.	=> 2x = 12
By trial, we see that $325 = 15^2 + 8^2 + 6^2$ or $12^2 + 10^2 + 9^2$	=>x=6 Success Partner
As the product of the ages is less than 1000, the ages	Present age of Rakesh = $6x = 6 \times 6 = 36$ years
have to be 6, 8, 15 WW. examplined it.in	Present age of Reena = $5x = 5 \times 6 = 30$ years
The youngest is 6.	Let they got married before n years.
36. A	(36 - n)/(30 - n) = 16/13
Let, the ages of mother and son be x and $(45 - x)$ years	=> 468 - 13n = 480 - 16n
respectively.	=> 3n = 12
Then,	=> n = 4
=>(x-5)(45-X-5)=34	39. B
=> (x - 5) (40 - x) = 34	Let mother's age be M and daughter's age be D.
$= x^2 - 45x + 234 = 0$	According to question,
(x - 39) (x - 6) = 0	M = 5D - 5
x = 39  or  x = 6	And given that
Mother's age = $39$ years and son's age = $6$ years.	D(5D - 5) = 210
37. C	5D2 - 5D = 210
Let, Punit's present age be x years. Then, his age at the	5D2 - 5D - 210 = 0
time of marriage = $(x-8)$ years.	D2 - D - 42 = 0

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D2 - 7D + 6D - 42 = 0	According to the first condition
D(D - 7) + 6(D - 7) = 0	$\mathbf{A} + \mathbf{N} = 9 (\mathbf{A} - \mathbf{N})$
(D+6)(D-7) = 0	N + 9N = 9A - A
D = -6, 7	10N = 8 A
So, D is 7 years old	The ratio of present age of $A : N = 5 : 4$
Hence, mother's age = $5 * 7 - 5$	According to second condition
= 30 years	(5x+6) + (4x+6) = 12(5x-4x)
40. A	$9\mathbf{x} + 12 = 12\mathbf{x}$
Let Tia's age is 5/3 c years and her little cousin's age is c	3x = 12
years.	x = 4
Now, according to question	Arun's present age = $5x = 20$
(5/3 * c - 5)/(c - 5) = 2/1	43. A
5/3 * c - 5 = 2c - 10	5 years ago, the ratio of age of the father and his son = $3$ :
1/3 * c = 5	1(3x, x)
C = 15 years WWW.exampUnoif.in	7 years hence, the ratio of age of the father and his son =
Tia's age = $5/3 * c = 25$ years	19: 9
Boyfriend's age = $6/5 * 25$	According to the question,
= 30 years	(3x + 12)/(x + 12) = (19/9)
41. C	27x + 108 = 19x + 228
Sum of ages of 4 members of a family 5 years $ago = 94$	8x = 120
years	X = 15
Their present age with daughter = $94 + 4 * 5$	The present age of the father and his son = $(3x + 5)$ , $(x + 5)$
= 114 years	5) = 50, 20
Now, their present age with daughter in law is 92 years.	The average Present age of the father, mother, son and
Hence, difference between daughter and daughter in law	daughter $= 30$
= 114 - 92	Total Present age of the father, mother, son and daughter
= 22 years.	= 30*4 = 120
<b>42.</b> E	Total present age of the mother and her daughter = $120 - 100$
Let the age of Arun and Nithin be A and N,	70 = 50

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Let the present age of mother and daughter be A and B,	12+k/16+p = (3/7)
$A + B = 50 - \dot{a}(1)$ $A - B = 30 - \dot{a}(2)$	84+7k=48+3p
A - B - 50 - a(2) By solving the equation (1) and (2),	36=3p-7k
A = 40, B = 10	
The present age of the daughter $= 10$ years	(k-6) =3p-18
44. A	12 = 3p - k
Let age of person = x years	36=3p-7k
∴ x = 3 (x + 3) – 3 (x – 3)	6k = 24
⇒ x = 9 + 9 = 18 years	
45. C	K=4
Let's assume Krishna age as x	After 6 years =4+6 =10
Harish grandfather =48+x	47. B
Grandmother =45+ harish brother	Average age of the family (5 years) ago = $40$
Harish brother= $x+5$	Total age of the family present = $(40*4) + (4*5)$
48+x+10+45+x+4+10+10+ x+4+10+x+10=49*5	Let two new members be X, X+4
4x=84	From statement,
X=21	X + X + 4 + 160 + 20 = 40 * 6
Harish grandmother age=x+5+45=71	2X+4+ 180 =240
46. C	2X = 56
	Younger one age $(X) = 28$ yrs
	Elder one Age = $(X+4)$ =32yrs
	<b>48.</b> E
	Let the number of boys = the number of $girls = n$
	Hence, total age of boys $= 10n$
	Let the average age of $girls = x$
	Hence, total age of girls $=$ nx
	Total age of the class = $10n + nx + x + 13$

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## exampundit Vour Success Partner

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Total number of people in the class $= n + n + 1 = 2n + 1$	(6x + 20)/x + 20 = ?
Average age of the class =	Substitute the value of x, we get
	$\frac{(10n + nx + x + 13)}{(2n + 1)} = 15 = 240 + 20/40 + 20$ $= 240 + 20/60$ $= 260/60$
Since this is a single linear equation in two variables, a	=13/3
unique solution can't be found.	After further 10 years, Sunil will be 13/3 times of son's
Therefore, the average age of the girls cannot be	age.
determined.	50. C
49. D	The ratio of present age of Ramesh and Kavi = $5: 6 (5x, $
Let son's age be x and Sunil's age be 5x.	6x)
Sunil's age is <mark>5 times more a</mark> ged than his son, therefore	Silambu = 5 + Kavi = 6x + 5
Sunil's present age = $x + 5x = 6x$	Sum of the present ages of three of them $= 56$ years
After 10 years, Sunil's age is 5 times more than his son	5x + 6x + 6x + 5 = 56
age. www.exampunoif.in	17x = 56 - 5
(6x + 10) = 5 (x + 10)	17x = 51
6x+10=5x+50	X = 3
6x-5x=50-10	Present age of Ramesh = $5x = 15$
X=40	Present age of Janvi = $2$ *Ramesh = $2$ *15 = 30 years
After 10 years it was $(6x + 10)$ , then after further 10	The age of Janvi, after 3 years = 33 years
years, Sunil's age = $(6x + 20)$ and son age = $x+20$	