

DI Info Chart Questions for SBI PO Mains, IBPS PO Mains and RBI Grade B Exams.

DI Info Chart No 33

Directions: Study the following information carefully and answer the questions given beside.

Mr. Dexter has four kids and all were born on same date of different years. They all have birthday today. Mr. Dexter wants to buy chocolates for all his kids. But he don't want to give each kid equal number of chocolates.

He decides to do the following thing:

He will divide the height (in centimeters) by the sum of age number with weight (in kilogram).

He arrive at this formula –

Number of chocolate = height in centimeters/(weight in kilogram + age)

The number that will come is the number of chocolates that a particular kid gets.

His second youngest kid is twice the age of the youngest kid whose age is one-third the oldest kid. The second oldest kid is three year younger than the oldest kid. Weight of oldest kid is 36 kg which is numerically three times the age of second oldest kid, whose weight is four times the age of second youngest kid. Weight of the youngest kid is 40% less than the second oldest kid. Sum of weight of all four kids is 129 kg.

The Question Bank

1. After two years, weight of oldest kid increases 4 kg, second oldest kid by 2 kg, the second youngest kid gains 6kg and the youngest kid gains 9 kg weight. Ratio of average weight to average age of all the four kids.

A. 1 : 3 B. 1 : 4 C. 3 : 1 D. 4 : 1 E. None of these

2. The oldest and second oldest kids get equal number of chocolates. Find the ratio of their heights if both of them got three chocolates. (oldest : second oldest)

A. 50 : 49B. 52 : 51C. 51 : 52D. 49 : 50E. None of these

3. How many total chocolates were distributed if oldest and second oldest got total 6 and the height of youngest is 145 cm while the second youngest is 11 cm taller than the youngest?

A. 12 B. 13 C. 14 D. 15 E. None of these

4. Mr. Dexter also buys some pens for his kids and he wants to distribute in this way. The kid with highest weight will get half of them, the kid with second highest weight will get half of what left after giving half the pen to the kid with highest weight. The third highest weight kid get half of what left after the first two round of distributions. If last kid gets 2 pens, ratio of weight to the number of pens for the oldest kid?

A. 1 : 4 B. 1 : 9 C. 9 : 1 D. 4 : 1 E. None of these

5. After 5 years from this birthday, Mr. Dexter repeat the same method of distributing the chocolates. After five years, his youngest kid has gained 25% weight while the oldest kid has weight twice the youngest kid. He distribute 6 chocolates between youngest and the oldest kid. If their heights are equal then choose the correct option.

A. Youngest kid gets 2 chocolates B. oldest kid gets 4 chocolates C. height of them is 156cm each E. None of these D. height of them is 160cm each Smartkeeda The Question Bank **Correct Answers:** 2 3 5 1 4 С С D С D



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Common Explanations :

It is given that the second youngest kid is twice the age of the youngest kid whose age is three times less than the oldest kid.

Let the age of youngest kid is 'y', then the second youngest kid would be 2y and the oldest would be 3y.

Weight of oldest kid is 36 kg which is numerically three times more than the age of second oldest kid.

Age of second oldest kid would be 12 years.

Since, the second oldest kid is three year younger than the oldest kid, oldest kid would be 15 years. From this we get 3y = 15, thus y = 3. So the age of youngest kid = 5 years, second youngest kid = 10 years.

The Question Bank

Second oldest kid, whose weight is four times the age of second youngest kid

Second youngest kid = 10 years, so weight of second oldest kid = $4 \times 10 = 40$ kg

Weight of the youngest kid is 40% less than the second oldest kid

Weight of second oldest = 40kg, youngest kid = 40kg - 40% of 40kg = 24kg

Sum of all the weights = 129kg = 36kg + 24kg + 40kg + weight of second youngest kid

Weight of second youngest kid = 29kg

In a table form all the values are:

	Age(years)	Weight(kg)
Oldest kid	15	36
2 nd oldest kid	12	40
2 nd youngest kid	10	29
Youngest kid	5	24



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Answers:

1. From common explanation we see weights after two years become:

36 + 4 = 40 kg 40 + 2 = 42 kg 29 + 6 = 35 kg 24 + 9 = 33 kg Total = 150 Average weight = $\frac{150}{4}$ kg After 2 years, ages would be (15 + 2), (12 + 2), (10 + 2), and (5 + 2) 17, 14, 12, and 7 Average age = $\frac{17 + 14 + 12 + 7}{4} = \frac{50}{4}$ Ratio = $\frac{150}{4} : \frac{50}{4} = 3 : 1$ Hence, option C is correct.

2. From common explanation, we have

The formula he used to distribute the chocolates is

Number of chocolate = $\frac{\text{height in centimeters}}{(\text{weight in kilogram + age})}$

For second oldest kid – $3 = \frac{\text{height in cm}}{(40 + 12)} = \frac{\text{height in cm}}{52}$ Height in cm = 52 × 3 = 156 cm For oldest kid – $3 = \frac{\text{height in cm}}{(15 + 36)}$ Height in cm = 51 × 3 = 153 cm Ratio = oldest : second oldest = 153 : 156 = 51 : 52 Hence, option C is correct.



It is given the two of them got total of 6 chocolates.

Youngest kid's height is 145 cm, so

Number of chocolate = $\frac{\text{height in centimeters}}{(\text{weight in kilogram + age})}$

Number of chocolate $=\frac{145}{24+5}=\frac{145}{29}=5$

Second youngest height = 145 + 11 = 156 cm

Number of chocolate = $\frac{156}{29 + 10} = \frac{156}{39} = 4$

Total chocolates = 6 + 5 + 4 = 15

Hence, option D is correct.

4. From common explanation, we have markeeda Let he bought 'y' pens.

Kid with highest weight (40kg) = $\frac{\gamma}{2}$ pens

The Question Bank

Number of pens left = $\frac{\gamma}{2}$

Half of it will go to 36 kg kid = $\frac{\gamma}{4}$

Number of pens left = $\frac{y}{4}$

Half of it will go to 29 kg kid = $\frac{y}{8}$

Number of pens left = $\frac{y}{8}$

The kid with 24kg weight will get whatever left,

so he also gets = $\frac{y}{8}$

Since he gets 2 pens, we must have:

$$\frac{y}{8} = 2$$
, or y = 16

Ratio of weight to the number of pens for the oldest kid

Weight of oldest kid = 36kg, pens he got

$$\frac{y}{4} = \frac{16}{4} = 4$$

Ratio = 36 : 4 = 9 : 1

Hence, option C is correct.

5. From common explanation, we have

After 5 years, oldest kid = 15 + 5 = 20 years, and youngest kid = 5+5 = 10 years. Weight of youngest kid = 24kg + 25% of 24kg = 30kgWeight of oldest kid = $2 \times$ weight of youngest kid = $2 \times 30 = 60kg$ Let the youngest kid gets 'y' chocolates, then the oldest will get (6 - y) chocolates. Now, let their heights be 'H'

Number of chocolates youngest kid get, ne Ouestion Bank

$$y = \frac{H}{10 + 30} = \frac{H}{40}$$

H = 40y -----(i)

Number of chocolates oldest kid get,

 $(6 - y) = \frac{H}{20 + 60} = \frac{H}{80}$ H = 80 (6 - y) ------(ii) H = 40y = 80 (6 - y) y = 2(6 - y) = 12 - 2y y = 4 from (i) H = 40 × 4 = 160 cm

Hence, option D is correct.

