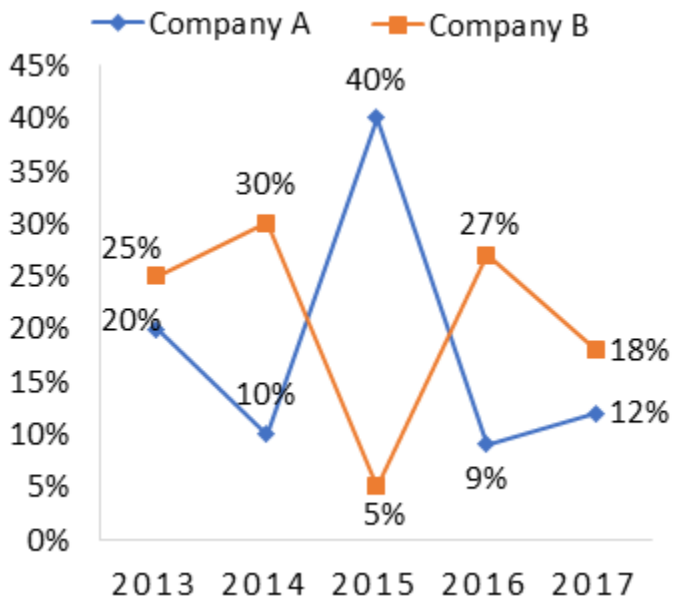
# Date Interpretation Line Chart Questions for IBPS PO Pre, IBPS RRB Scale I Pre, SBI PO Pre, SBI Clerk Mains and IBPS Clerk Mains Exams

## DI Line Chart Quiz 31

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

The following line graph shows the percentage of net profit of company A and Company B.

$$\text{Net profit percentage} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$$




**1. If the total income of company A in the year 2015 was Rs. 40,000 then approximately what was the total expenditures of the company in that year?**

A. Rs. 28571 B. Rs. 28642 C. Rs. 29456 D. Rs. 28222 E. None of these

**2. If the total income of company B in the year 2014 and 2015 together was Rs. 5 lakhs then what was the total expenditures of the company B in the year 2014 and 2015 together?**

A. Rs. 2.8 lakhs B. Rs. 2.73 lakhs C. Rs. 2.78 lakhs D. Rs. 2.92 lakhs E. Can't be determined

**3.** **In the year 2014, the total income of company A and B together was Rs. 80000 and the income of company A was 40% less than the income of company B then the expenditures of company A was approximately what percent less than the expenditures of company B?**

A. 34% B. 39% C. 24% D. 29% E. 19%

**4.** **In the year 2015, the ratio of the expenditures of company A to the expenditures of company B was 4 : 5 then what was the ratio of the income of company A to the income of company B?**

A. 12 : 11 B. 16 : 15 C. 13 : 12 D. 19 : 18 E. None of these

**5.** **In the year 2013, the income of both the companies were same, then what was the ratio of the expenditures of company A to the expenditures of company B?**

A. 24 : 25 B. 5 : 4 C. 10 : 9 D. 15 : 14 E. None of these

**Correct Answers:**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| A | E | D | B | E |



## Explanations:

**1.** In the year 2015, profit% of company A = 40%

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$$

$$40 = \frac{40000 - E}{E} \times 100$$

$140E = 40000 \times 100,$

$E = 28571.43 = 28571(\text{approx})$

Hence, option A is correct.

**2.** In the year 2013, the net percentage profit of company B = 25% and in the year 2014, it was 30%

In the question, the total income of both the year is given from here we could not conclude what was its income in the year 2013 and 2014 separately therefore answer can't be determined

Hence, option E is correct.

**3.** In the year 2014, let the income of company B = 10x then the income of company A = (100 – 40)% of 10x = 6x

Then, 10x + 6x = 16x = 80000

X = 5000

The income of company A = 6x = 6 × 5000 = 30000

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$$

$$10 = \frac{30000 - E}{E} \times 100$$

110E = 30000 × 100,

E = approximately Rs. 27272

The income of company B = 10 × 5000 = 50000

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$$

$$30 = \frac{50000 - E}{E} \times 100$$

130E = 50000 × 100,

E = approximately Rs. 38461

$$\text{The reqd. \%} = \frac{(38461 - 27272) \times 100}{38461} = 29.09\% = \text{approximately } 29\%$$

Hence, option D is correct.

**4.** In the year 2015, let the expenditures of company A = 4x

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100$$

$$40 = \frac{I - 4X}{4X} \times 100,\ 160X = 100I - 400X,$$

$$I = \frac{560X}{100} = 5.6X$$

Let the expenditures of company B = 5x

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100,$$

$$5 = \frac{I - 5X}{5X} \times 100,\ 25X = 100I - 500X,$$

$$I = \frac{525X}{100} = 5.25X$$

The required ratio = 5.6x : 5.25x = 560 : 525 = 16 : 15
Hence, option B is correct.

**5.** In the year 2013, let the income of company A = X = income of company B

For company A,

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100,$$

$$20 = \frac{X - E}{E} \times 100,\ 20E = 100X - 100X,$$

$$E = \frac{100X}{120}$$

For company B,

$$\text{Net profit \%} = \frac{\text{Income} - \text{Expenditures}}{\text{Expenditures}} \times 100,$$

$$25 = \frac{X - E}{E} \times 100,\ 25E = 100X - 100E,$$

$$E = \frac{100X}{125}$$

$$\text{The reqd. ratio} = \frac{100x}{120} : \frac{100x}{125} = 125 : 120 = 25 : 24$$

Hence, option E is correct.