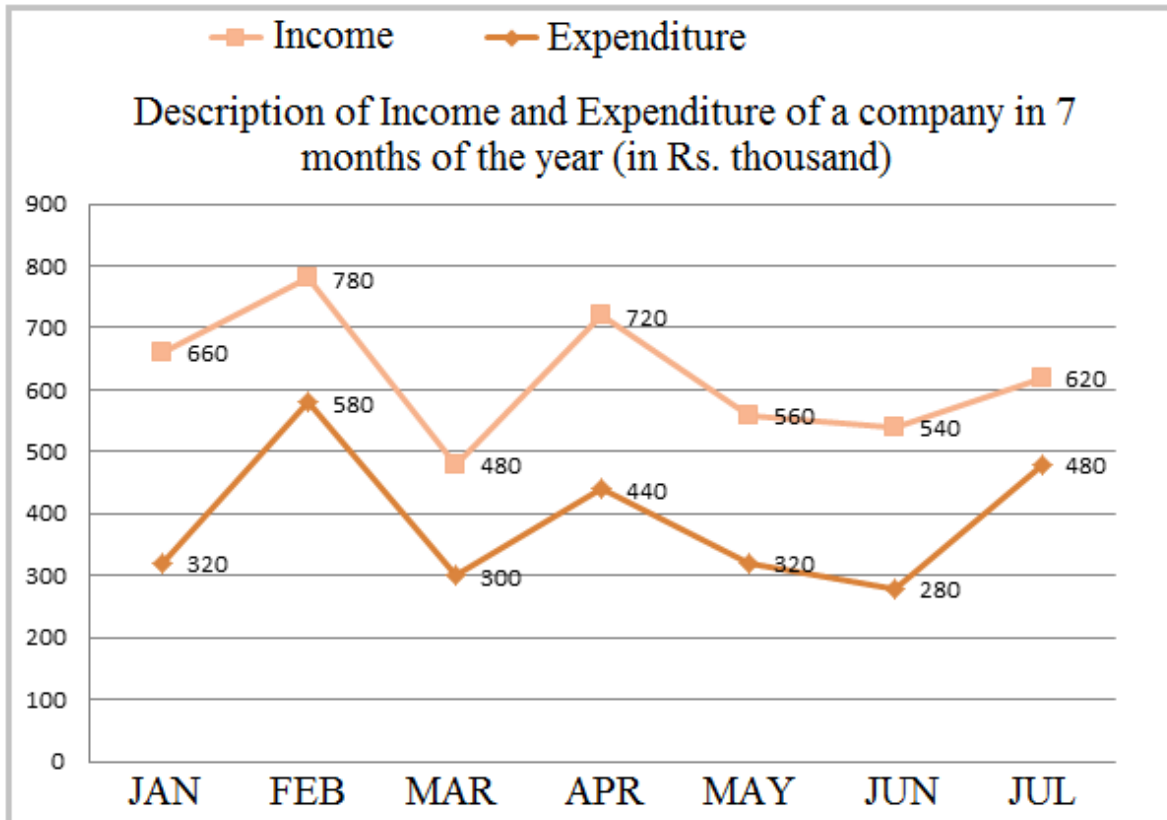


DI Income Expenditure



Profit = Income – Expenditure , Loss = Expenditure – Income

Profit% = (Profit/Expenditure)*100

Loss% = (Loss/Expenditure)*100

1. What is the average expenditure of the company in the given months(in thousands)?

- A) Rs.389
- B) Rs.350
- C)Rs.420
- D) Rs.310
- E) Rs.440

2. What is the respective ratio between the percentage profits earned by the company in the months of February and May?

- A) 21 :48
- B) 25 : 44
- C) 23 : 42
- D) 23 : 50
- E) 20 : 45

3. What is the difference between the total profit earned by the company in the months of February, April and July and that earned in the months of January, March and June?

- A) Rs.150
- B) Rs. 210
- C) Rs.200
- D) Rs.160
- E) Rs.110

DI Income Expenditure



4. By what percent is the profit earned by the company in the month of February less than that earned in the month of January?

- A) 45%
- B) 52%
- C) 47%
- D) 41%
- E) 50%

5. In how many months, the income of company was more than the average income during the given months?

- A) 2
- B) 1
- C) 3
- D) 4
- E) None

1. Average expenditure of company = $2720/7 = \text{Rs. } 389 \text{ thousands}$

2. Profit percent of company = February $\Rightarrow [(780 - 580)/580]*100 = 34.5$
May = $[(560-320)/320]*100 = 75 \Rightarrow 345 : 750 = 23 : 50$

3. Total profit earned by the company in the months of February, April and July
 $= 200 + 280 + 140 = \text{Rs. } 620 \text{ thousands}$

Profit earned in the months of January, March and June = $340 + 180 + 260 = \text{Rs. } 780 \text{ thousands.}$
Difference = $780 - 620 = \text{Rs. } 160 \text{ thousands}$

4. Profit of company :

February = $780 - 580 = \text{Rs. } 200 \text{ thousand}$

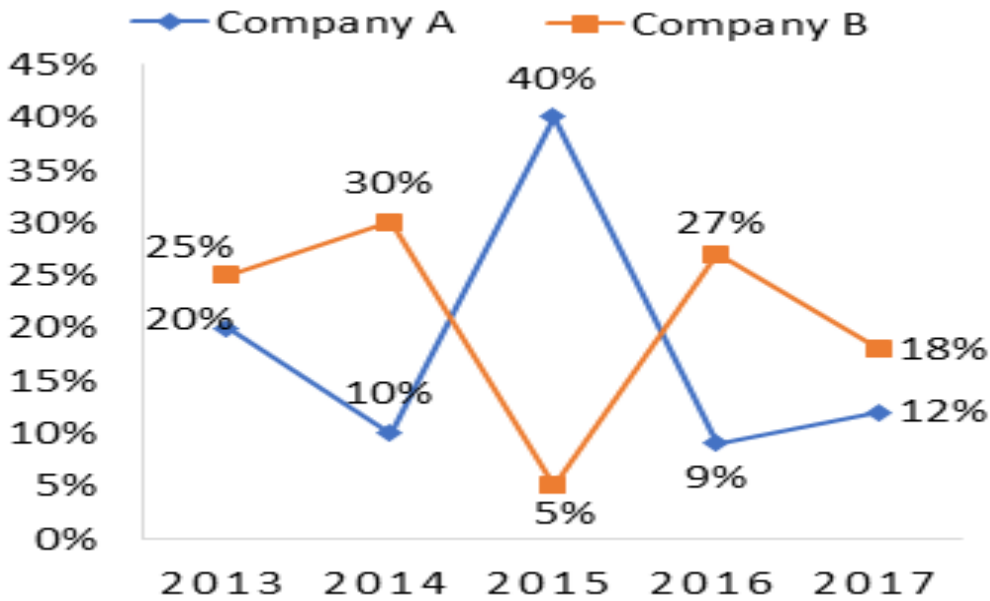
January = $660 - 320 = \text{Rs. } 340 \text{ thousand}$

Required % = $[(340 - 200)/340]*100 = 41\%$

5. Average income of company = $4360/7 = \text{Rs. } 623 \text{ thousand}$

Hence, the answer is 3 (Jan., Feb. and Apr.)

DI Income Expenditure



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

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

Net profit percentage = $(\text{Income} - \text{Expenditures}) / \text{Expenditures} \times 100$

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

DI Income Expenditure



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 Option: A

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

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

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

$$140E = 40000 \times 100, \Rightarrow E = 28571.43 = 28571(\text{approx}). \text{ Hence, option A is correct.}$$

Correct Option: E

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.

Correct Option: D

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

$$\text{Then, } 10x + 6x = 16x = 80000$$

$$x = 5000$$

$$\text{The income of company A} = 6x = 6 \times 5000 = 30000$$

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

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

$$110E = 30000 \times 100,$$

$$E = \text{approximately Rs. } 27272$$

$$\text{The income of company B} = 10 \times 5000 = 50000$$

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

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

$$130E = 50000 \times 100,$$

$$E = \text{approximately Rs. } 38461$$

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

DI Income Expenditure



Hence, option D is correct.

Correct Option: B

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.

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

For company A,

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

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

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

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.

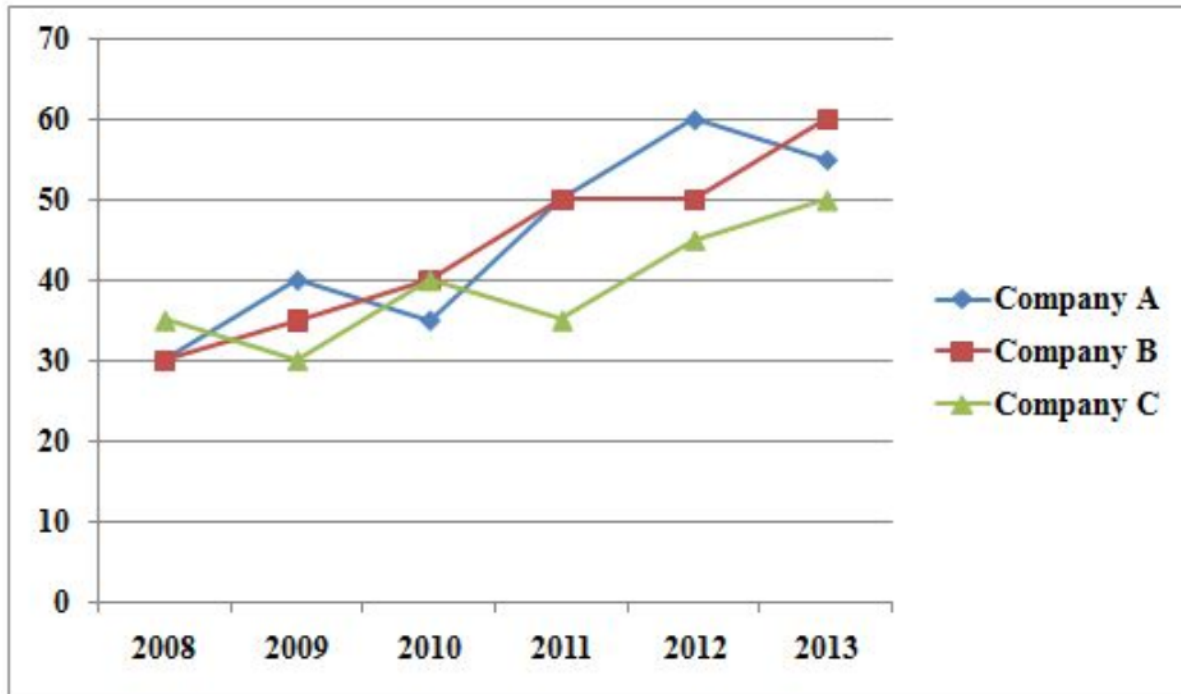
DI Income Expenditure



I. Study the graph carefully to answer the questions that follow

Percent profit made by companies over the years.

$$\text{Percent Profit} = \frac{(\text{Income} - \text{Expenditure})}{\text{Expenditure}} * 100$$



1. If in the year 2008 the expenditures incurred by company A and C were the same, what was the ratio of the income of company A to that of Company C in that year?

- A. 26 : 31
- B. 26 : 27
- C. 21 : 29
- D. 27 : 29
- E. None of these

Answer & Explanation Answer – B. 26 : 27

Explanation :

Let Expenditure = Rs. 100

Income(A) = Rs. 130

Income(C) = Rs. 135

Ratio = 130 : 135 = 26 : 27

2. If in the year 2012, the incomes of both companies A and C were same, What was the ratio of expenditure of Company A to the expenditure of Company C in that year?

- A. 17 : 31
- B. 21 : 32
- C. 31 : 19
- D. 29 : 32
- E. None of these

Answer & Explanation Answer – D. 29 : 32

Explanation :

$$60 = \frac{(I-E)}{E} * 100$$

$$E(A) = \frac{5}{8} x$$

DI Income Expenditure



$$45 = (I-E)/E * 100$$

$$E(B) = 20/29 \times$$

$$\text{Ratio} = 5/8 : 20/29 = 29: 32$$

3. What is the ratio of the amount of profit earned by company A to that by company B in the year 2013?

A.17 :29

B.11 : 17

C.11 : 15

D.Cannot be determined

E.None of these

Answer & Explanation Answer "D.Cannot be determined"

Explanation :

Cannot be determined

4. For Company B, in which year is the percent of increase in percent profit over that of previous year the highest?

A.2009

B.2010

C.2011

D.2013

E.Cannot be determined

Answer & Explanation Answer "C.2011"

Explanation :

$$\text{In 2009, } 35-30/30 * 100 = 16.67\%$$

$$\text{In 2010, } 40-35/35 * 100 = 14.28\%$$

$$\text{In 2011, } 50-40/40 * 100 = *25%*$$

$$\text{In 2012, } 0\%$$

$$\text{In 2013, } 60-50/50 * 100 = 20\%$$

5. *What is approximate percentage of the average per cent profit earned by company C to that of company A over all the years together? *

A.87%

B.78%

C.67%

D.76%

E.Cannot be determined

Answer & Explanation Answer "A.87%"

Explanation :

$$\text{Average per cent profit earned by company C} = 235/6$$

$$\text{Average per cent profit earned by company A} = 270/6$$

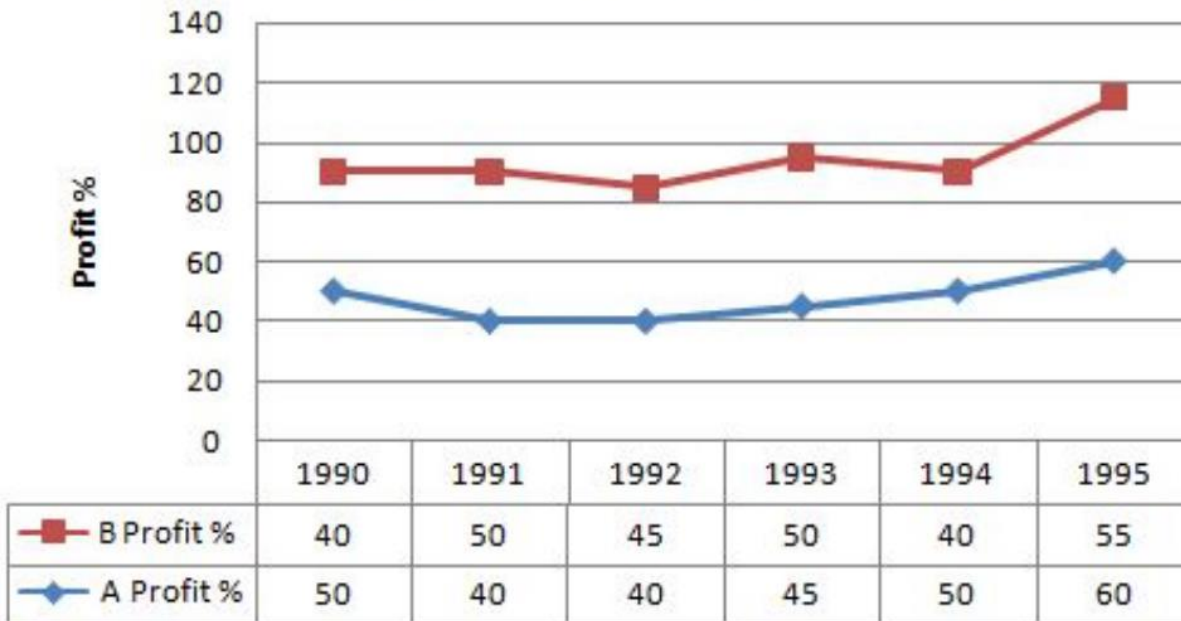
$$\text{Percentage} = 235/270 * 100 = 87%* *$$

DI Income Expenditure



I. Study the following information to answer the given questions
line chart

Profit % earned by A and B over 2 yrs



1. Expenditure of A in 1994 and 1995 are Rs. 12lak and Rs.14lak. What was the total income of A in 1994 and 1995 together ?

- A)Rs.40.8L
 - B)Rs.40.4L
 - C)Rs.44L
 - D)Rs.46.4L
 - E)None of these
- Answer B)40.4L

Explanation :

1994 E = 12 L

$$\% P = (I - E)100 / E \quad 50 = (I - 12)100 / 12$$

$$I = 6 + 12 = 18 \text{ L}$$

1995 E = 14L

$$60 = (I - 14) * 100 / 14$$

$$I = 22.4 \text{ L}$$

$$\text{Total} = 18 + 22.4 = 40.4 \text{ L}$$

2. Ratio of Expenditure of Companies A and B in 1993 was 4:5. What was the ratio of their incomes in the same year ?

- A)58:75
 - B)75:58
 - C)78:55
 - D)72:55
 - E) None of these
- Answer A)58:75

Explanation :

$$A : B = 40:50$$

DI Income Expenditure



$$45 = (I - 40)100/40 \dots\dots\dots(A) \quad I = 58L \quad 50 = (I - 50)100/50$$

$$I = 75L \dots\dots\dots(B)$$

$$A:B = 58:75$$

3. Total Expenditure of company B in all the years together was Rs.125L. What was the total income of the company in all the years together ?

- A)Rs.185L
- B)Rs.,520L
- C)Rs.250L
- D)Cannot be determined
- E) None of these

Answer D)Cannot be determined

Explanation :Over all % is not known

4. If the incomes of the B in 1992 and 1993 were in the ratio 3:4, Find the ratio of Expenditures of that company in these 2 years ?

- A)48:55
- B)42:53
- C)58:45
- D)45:58
- E) None of these

Answer D)45:58

Explanation :

$$\text{Income} \Rightarrow 1992:1993 = 3:4 = 30:40$$

$$45 = (30-E)100/E \quad 45E/100 = 30 - E \quad 9E/20 = 30 - E \quad 9E = 600 - 20E \quad 29E = 600 \quad E =$$

$$600/29 \dots\dots\dots 1992 \quad 50 = (40 - E)100 / E$$

$$50E/100 = 40 - E$$

$$E = 2(40 - E)$$

$$E = 80 - 2E$$

$$3E = 80$$

$$E = 80/3$$

$$\text{Ratio} = (600/29) / (80/3) = 6003 / 2980$$

$$= 1800/2320 = 180/232 = 45/58$$

5. If the expenditure of A and B in 1991 were equal and total income of A and B was Rs. 116L, what was the total expenditure of A and B in the same years ?

- A)Rs.84L
- B)Rs.83L
- C)Rs.80L
- D)Rs.40L
- E) None of these

Answer C)Rs.80L

Explanation :

For A

$$40 = (I - E)100/E \quad 40E = (I - E)100 \quad 2E = 5I - 5E \quad 5I = 7E \quad I = 7/5 E \quad \text{For B} \quad 50 = (116-I-E)100/E$$

$$E = 2(116 - I - E)$$

$$E = 232 - 2I - 2E$$

$$2I = 232 - 3E$$

$$I = (232 - 3E)/2$$

$$7/5E = (-232 - 3E)/2$$

$$14E = 1160 - 15E$$

$$29E = 1160$$

DI Income Expenditure



$$E = 1160/29 = 40$$

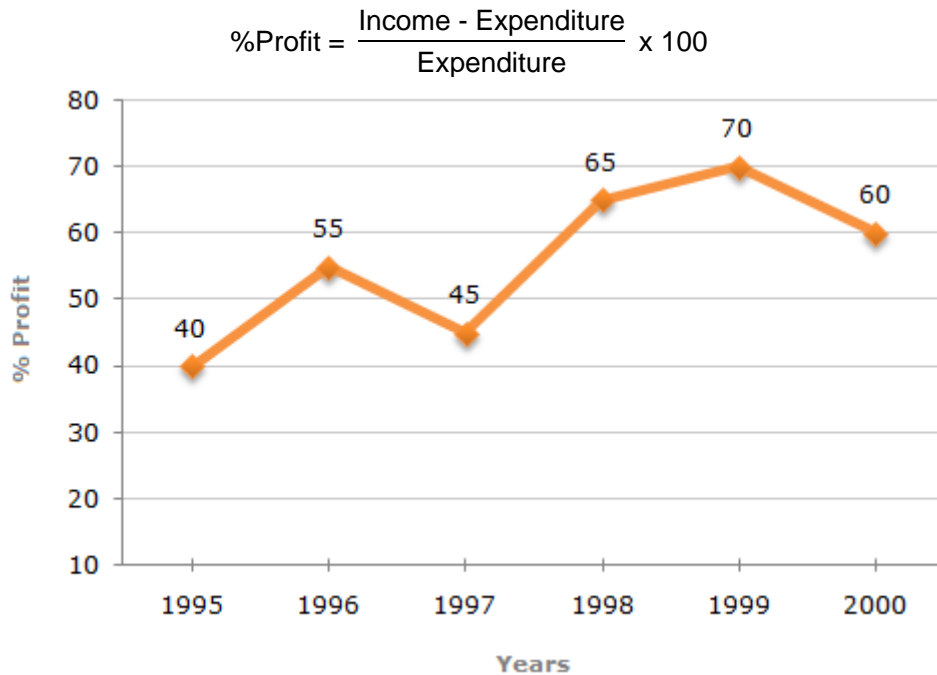
$$2E = 80$$

DI Income Expenditure



The following line graph gives the annual percent profit earned by a Company during the period 1995 - 2000.

Percent Profit Earned by a Company Over the Years.



1. If the expenditures in 1996 and 1999 are equal, then the approximate ratio of the income in 1996 and 1999 respectively is?

- A. 1:1
- B. 2:3
- C. 13:14
- D. 9:10

Answer: Option D

Explanation:

Let the expenditure in 1996 = x .

Also, let the incomes in 1996 and 1999 be I_1 and I_2 respectively.

Then, for the year 1996, we have:

$$55 = \frac{I_1 - x}{x} \times 100 \Rightarrow \frac{55}{100} = \frac{I_1}{x} - 1 \Rightarrow I_1 = \frac{155x}{100} \dots (i)$$

$$70 = \frac{I_2 - x}{x} \times 100 \Rightarrow \frac{70}{100} = \frac{I_2}{x} - 1 \Rightarrow I_2 = \frac{170x}{100} \dots (ii)$$

From (i) and (ii), we get:

$$\frac{I_1}{I_2} = \frac{\left(\frac{155x}{100}\right)}{\left(\frac{170x}{100}\right)} = \frac{155}{170} \approx \frac{0.91}{1} \approx 9 : 10.$$

2. If the income in 1998 was Rs. 264 crores, what was the expenditure in 1998?

DI Income Expenditure



- A. Rs. 104 crores
- B. Rs. 145 crores
- C. Rs. 160 crores
- D. Rs. 185 crores

Answer: Option C

Explanation:

Let the expenditure in 1998 be Rs. x crores.

$$\text{Then, } 65 = \frac{264 - x}{x} \times 100$$

$$\Rightarrow \frac{65}{100} = \frac{264}{x} - 1$$

$$\Rightarrow x = \frac{264 \times 100}{165} = 160.$$

∴ Expenditure in 1998 = Rs. 160 crores.

3. In which year is the expenditure minimum?

- A. 2000
- B. 1997
- C. 1996
- D. Cannot be determined

Answer: Option D

Explanation:

The line-graph gives the comparison of percent profit for different years but the comparison of the expenditures is not possible without more data.

Therefore, the year with minimum expenditure cannot be determined.

4. If the profit in 1999 was Rs. 4 crores, what was the profit in 2000?

- A. Rs. 4.2 crores
- B. Rs. 6.6 crores
- C. Rs. 6.8 crores
- D. Cannot be determined

Answer: Option D

Explanation:

From the line-graph we obtain information about the percentage profit only. To find the profit in 2000 we must have the data for the income or expenditure in 2000.

Therefore, the profit for 2000 cannot be determined.

DI Income Expenditure



5. What is the average profit earned for the given years?

A. $50\frac{2}{3}$

B. $55\frac{5}{6}$

C. $60\frac{1}{6}$

D. 335

Answer: Option B

Explanation:

Average percent profit earned for the given years

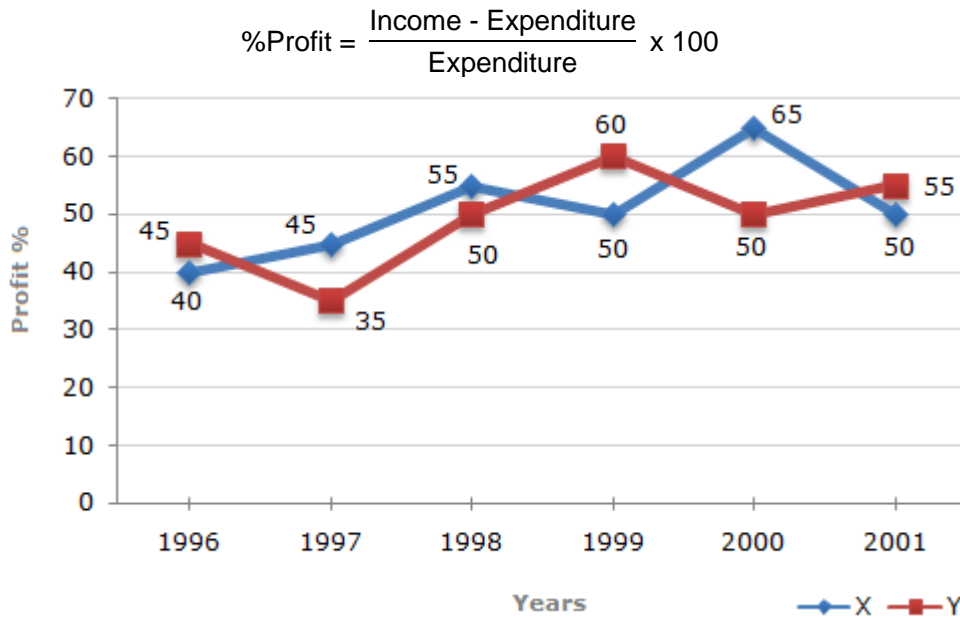
$$= \frac{1}{6} \times [40 + 55 + 45 + 65 + 70 + 60] = \frac{335}{6} = 55\frac{5}{6}$$

DI Income Expenditure



The following line graph gives the percent profit earned by two Companies X and Y during the period 1996 - 2001.

Percentage profit earned by Two Companies X and Y over the Given Years



1. The incomes of two Companies X and Y in 2000 were in the ratio of 3:4 respectively. What was the respective ratio of their expenditures in 2000 ?

- A. 7:22
- B. 14:19
- C. 15:22
- D. 27:35

Answer: Option C

Explanation:

Let the incomes in 2000 of Companies X and Y be $3x$ and $4x$ respectively.

And let the expenditures in 2000 of Companies X and Y be E_1 and E_2 respectively.

Then, for Company X we have:

$$65 = \frac{3x - E_1}{E_1} \times 100 \Rightarrow \frac{65}{100} = \frac{3x}{E_1} - 1 \Rightarrow E_1 = 3x \times \left(\frac{100}{165} \right) \dots (i)$$

For Company Y we have:

$$50 = \frac{4x - E_2}{E_2} \times 100 \Rightarrow \frac{50}{100} = \frac{4x}{E_2} - 1 \Rightarrow E_2 = 4x \times \left(\frac{100}{150} \right) \dots (ii)$$

From (i) and (ii), we get:

$$\frac{E_1}{E_2} = \frac{3x \times \left(\frac{100}{165} \right)}{4x \times \left(\frac{100}{150} \right)} = \frac{3 \times 150}{4 \times 165} = \frac{15}{22} \text{ (Required ratio).}$$

2. If the expenditure of Company Y in 1997 was Rs. 220 crores, what was its income in 1997 ?

DI Income Expenditure



- A. Rs. 312 crores
- B. Rs. 297 crores
- C. Rs. 283 crores
- D. Rs. 275 crores

Answer: Option B

Explanation:

Profit percent of Company Y in 1997 = 35.

Let the income of Company Y in 1997 be Rs. x crores.

$$\text{Then, } 35 = \frac{x - 220}{220} \times 100 \Rightarrow x = 297.$$

∴ Income of Company Y in 1997 = Rs. 297 crores.

3. If the expenditures of Company X and Y in 1996 were equal and the total income of the two Companies in 1996 was Rs. 342 crores, what was the total profit of the two Companies together in 1996 ? (Profit = Income - Expenditure)

- A. Rs. 240 crores
- B. Rs. 171 crores
- C. Rs. 120 crores
- D. Rs. 102 crores

Answer: Option D

Explanation:

Let the expenditures of each companies X and Y in 1996 be Rs. x crores.

And let the income of Company X in 1996 be Rs. z crores.

So that the income of Company Y in 1996 = Rs. $(342 - z)$ crores.

Then, for Company X we have:

$$40 = \frac{z - x}{x} \times 100 \Rightarrow \frac{40}{100} = \frac{z}{x} - 1 \Rightarrow x = \frac{100z}{140} \dots (i)$$

Also, for Company Y we have:

$$45 = \frac{(342 - z)}{x} \times 100 \Rightarrow \frac{45}{100} = \frac{(342 - z)}{x} - 1 \Rightarrow x = \frac{(342 - z) \times 100}{145} \dots (ii)$$

From (i) and (ii), we get:

$$\frac{100z}{140} = \frac{(342 - z) \times 100}{145} \Rightarrow z = 168.$$

Substituting $z = 168$ in (i), we get : $x = 120$.

∴ Total expenditure of Companies X and Y in 1996 = $2x =$ Rs. 240 crores.

Total income of Companies X and Y in 1996 = Rs. 342 crores.

∴ Total profit = Rs. $(342 - 240)$ crores = Rs. 102 crores.

DI Income Expenditure



4. The expenditure of Company X in the year 1998 was Rs. 200 crores and the income of company X in 1998 was the same as its expenditure in 2001. The income of Company X in 2001 was ?

- A. Rs. 465 crores
- B. Rs. 385 crores
- C. Rs. 335 crores
- D. Rs. 295 crores

Answer: Option A

Explanation:

Let the income of Company X in 1998 be Rs. x crores.

$$\text{Then, } 55 = \frac{x - 200}{200} \times 100 \Rightarrow x = 310.$$

\therefore Expenditure of Company X in 2001 = Income of Company X in 1998
= Rs. 310 crores.

Let the income of Company X in 2001 be Rs. z crores.

$$\text{Then, } 50 = \frac{z - 310}{310} \times 100 \Rightarrow z = 465.$$

\therefore Income of Company X in 2001 = Rs. 465 crores.

-
5. If the incomes of two Companies were equal in 1999, then what was the ratio of expenditure of Company X to that of Company Y in 1999 ?

- A. 6:5
- B. 5:6
- C. 11:6
- D. 16:15

Answer: Option D

Explanation:

Let the incomes of each of the two Companies X and Y in 1999 be Rs. x .

And let the expenditures of Companies X and Y in 1999 be E_1 and E_2 respectively.

Then, for Company X we have:

$$50 = \frac{x - E_1}{E_1} \times 100 \Rightarrow \frac{50}{100} = \frac{x}{E_1} - 1 \Rightarrow x = \frac{150}{100}E_1 \dots (i)$$

Also, for Company Y we have:

$$60 = \frac{x - E_2}{E_2} \times 100 \Rightarrow \frac{60}{100} = \frac{x}{E_2} - 1 \Rightarrow x = \frac{160}{100}E_2 \dots (ii)$$

From (i) and (ii), we get:

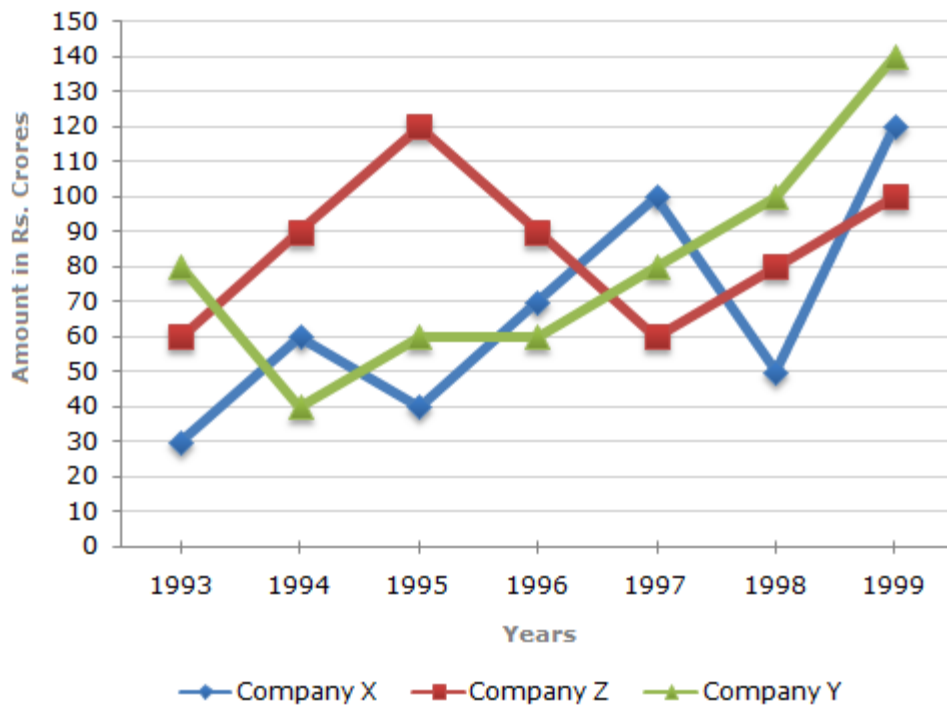
$$\frac{150}{100}E_1 = \frac{160}{100}E_2 \Rightarrow \frac{E_1}{E_2} = \frac{160}{150} = \frac{16}{15} \text{ (Required ratio).}$$

DI Income Expenditure



Study the following line graph and answer the questions.

Exports from Three Companies Over the Years (in Rs. crore)



1. For which of the following pairs of years the total exports from the three Companies together are equal?

- A. 1995 and 1998
- B. 1996 and 1998
- C. 1997 and 1998
- D. 1995 and 1996

Answer: Option D

Explanation:

Total exports of the three Companies X, Y and Z together, during various years are:

In 1993 = Rs. (30 + 80 + 60) crores = Rs. 170 crores.

In 1994 = Rs. (60 + 40 + 90) crores = Rs. 190 crores.

In 1995 = Rs. (40 + 60 + 120) crores = Rs. 220 crores.

In 1996 = Rs. (70 + 60 + 90) crores = Rs. 220 crores.

In 1997 = Rs. (100 + 80 + 60) crores = Rs. 240 crores.

In 1998 = Rs. (50 + 100 + 80) crores = Rs. 230 crores.

In 1999 = Rs. (120 + 140 + 100) crores = Rs. 360 crores.

Clearly, the total exports of the three Companies X, Y and Z together are same during the years 1995 and 1996.

2. Average annual exports during the given period for Company Y is approximately what percent of the average annual exports for Company Z?

- A. 87.12%

DI Income Expenditure



- B. 89.64%
- C. 91.21%
- D. 93.33%

Answer: Option D

Explanation:

Analysis of the graph: From the graph it is clear that

1. The amount of exports of Company X (in crore Rs.) in the years 1993, 1994, 1995, 1996, 1997, 1998 and 1999 are 30, 60, 40, 70, 100, 50 and 120 respectively.
2. The amount of exports of Company Y (in crore Rs.) in the years 1993, 1994, 1995, 1996, 1997, 1998 and 1999 are 80, 40, 60, 60, 80, 100 and 140 respectively.
3. The amount of exports of Company Z (in crore Rs.) in the years 1993, 1994, 1995, 1996, 1997, 1998 and 1999 are 60, 90, 120, 90, 60, 80 and 100 respectively.

Average annual exports (in Rs. crore) of Company Y during the given period

$$= \frac{1}{7} \times (80 + 40 + 60 + 60 + 80 + 100 + 140) = \frac{560}{7} = 80.$$

Average annual exports (in Rs. crore) of Company Z during the given period

$$= \frac{1}{7} \times (60 + 90 + 120 + 90 + 60 + 80 + 100) = \left(\frac{600}{7}\right).$$

$$\therefore \text{Required percentage} = \left[\frac{80}{\left(\frac{600}{7}\right)} \times 100 \right] \% \approx 93.33\%.$$

-
3. In which year was the difference between the exports from Companies X and Y the minimum?

- A. 1994
- B. 1995
- C. 1996
- D. 1997

Answer: Option C

Explanation:

The difference between the exports from the Companies X and Y during the various years are:

In 1993 = Rs. (80 - 30) crores = Rs. 50 crores.

In 1994 = Rs. (60 - 40) crores = Rs. 20 crores.

In 1995 = Rs. (60 - 40) crores = Rs. 20 crores.

In 1996 = Rs. (70 - 60) crores = Rs. 10 crores.

In 1997 = Rs. (100 - 80) crores = Rs. 20 crores.

In 1998 = Rs. (100 - 50) crores = Rs. 50 crores.

In 1999 = Rs. (140 - 120) crores = Rs. 20 crores.

Clearly, the difference is minimum in the year 1996.



4. What was the difference between the average exports of the three Companies in 1993 and the average exports in 1998?
- A. Rs. 15.33 crores
 - B. Rs. 18.67 crores
 - C. Rs. 20 crores
 - D. Rs. 22.17 crores

Answer: Option C

Explanation:

Average exports of the three Companies X, Y and Z in 1993

$$= \text{Rs.} \left[\frac{1}{3} \times (30 + 80 + 60) \right] \text{ crores} = \text{Rs.} \left(\frac{170}{3} \right) \text{ crores.}$$

Average exports of the three Companies X, Y and Z in 1998

$$= \text{Rs.} \left[\frac{1}{3} \times (50 + 100 + 80) \right] \text{ crores} = \text{Rs.} \left(\frac{230}{3} \right) \text{ crores.}$$

$$\text{Difference} = \text{Rs.} \left[\left(\frac{230}{3} \right) - \left(\frac{170}{3} \right) \right] \text{ crores}$$

$$= \text{Rs.} \left(\frac{60}{3} \right) \text{ crores}$$

$$= \text{Rs.} 20 \text{ crores.}$$

5. In how many of the given years, were the exports from Company Z more than the average annual exports over the given years?
- A. 2
 - B. 3
 - C. 4
 - D. 5

Answer: Option C

Explanation:

Average annual exports of Company Z during the given period

$$= \frac{1}{7} \times (60 + 90 + 120 + 90 + 60 + 80 + 100)$$

$$= \text{Rs.} \left(\frac{600}{7} \right) \text{ crores}$$

$$= \text{Rs.} 85.71 \text{ crores.}$$

DI Income Expenditure



From the analysis of graph the exports of Company Z are more than the average annual exports of Company Z (i.e., Rs. 85.71 crores) during the years 1994, 1995, 1996 and 1999, i.e., during 4 of the given years.