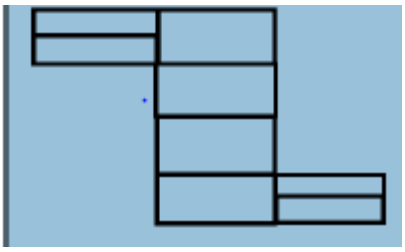
Conversion of Information to data - Collection, compilation and presentation of data tables, graphs, diagrams – Analytical interpretation of data

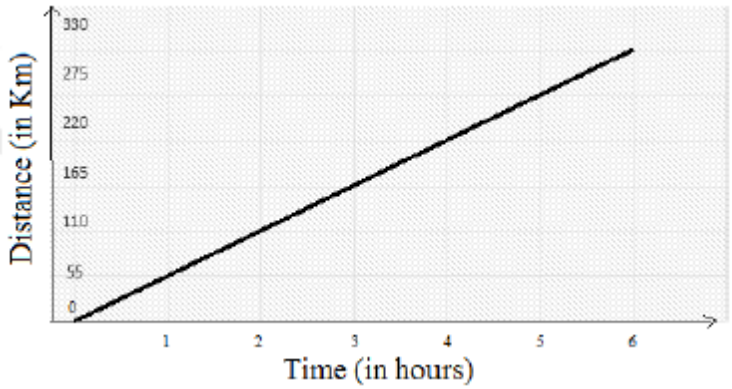
1 . Count the number of rectangle in the following figure .



A) 8 b) 17 c) 18 d) 20

Ans : 18

2 . The graph given below shows linear path of a car with uniform speed . The speed of car is



A) 50 Km/hr b) 55 Km/hr c) 45 Km/hr d) 20 Km/hr

-→ speed - ? distance = 300 km

Time = 6hr

Speed $= \frac{distance}{time} = \frac{300}{6} = 50$ Km/hr

Ans : 50 Km / hr

3 . In the graph of y = - 3x , what is the value of ordinate when the abscissa is - 2 ?

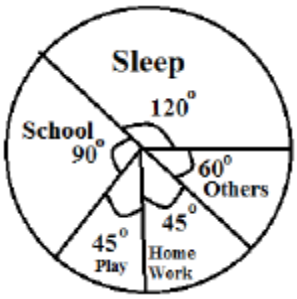
A) 12 b) -12 c) 2/3 d) $\sqrt{\frac{3}{2}}$

Subtitute x = -2

Y = - 3 (2) ^{2}

Ans : Y = - 12

4 . How many hours does a school students spend at school and doing homework from the pie diagram gives below . Time spent by a school students per day (24 hrs) .



A) 6 hrs b) 3 hrs c) 9 hrs d) 4 hrs

Total = 360^0 ,

school + home work = (90 + 45)

$= 135^0$

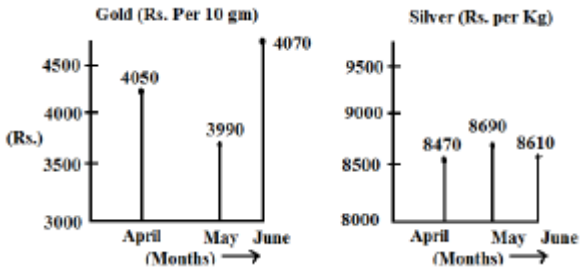
360^0 = 24 hr

135^0 = x

X = 135 X 24 / 360 = 9 hr

Ans : 9hr

5 . Price movement in different months



If x represents the price of 10gm of gold in may and Y represents the price of 100 grams of silver in june , then the relationship between the two prices can best be expressed

by the question

A) Y = 2x + 630 b) x = 2y + 630 c) Y/X = 2.23 d) 3x/y = 2.39

----→ x is gold

------> Y is silver

X = 3990 , y = 8610

To get both the price equal the equation should be,

So y = 2x + 630 .

6 . There are 600 creatures in a zoo as per list below

Creatures	Wild Animal	Birds	Other Land Animals	Water Animals	Reptiles
Number of Creatures	200	100	160	65	75

To represent this by a pie chart, the central angle of the sector of the circle representing birds is

A) 360^0 b) 120^0 c) 60^0 d) 96^0

------ > total creatures = 600
Birds = 100
} in pie chart

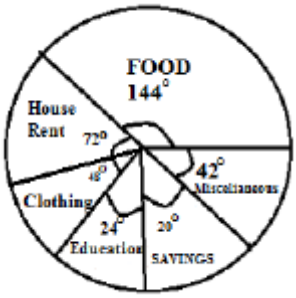
$600 = 360^0$

$100 = x$

$$x = \frac{360 \times 100}{600}$$

$= 60^0$

7 . How much money does a family earnings Rs.4800 per month spend on house rent and education and on food alone respectively from the pie diagram below



A) Rs.1920 & Rs.1280 b) Rs.1920 c) Rs. 1280 & Rs.1920 d) Rs.3200

Ans : Rs.1280 & Rs.1920

8 . In which year the production of scooters of all types taken together exceeds the average annual production from the table given below :

Year / Type	2007	2008	2009	2010	TOTAL
A	16	20	8	21	65
B	14	10	16	12	52
C	16	17	21	13	67
D	10	6	4	20	40
E	19	18	25	14	76
	75	71	74	80	300

Production of scooters by a company

A) 2010 b) 2007 c) 2009 d) 2008

Production of 2007 --→ 75

Production of 2008 ---→ 71

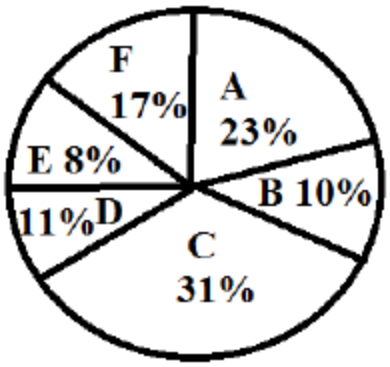
Production of 2009 ---→ 74

Production of2010 ------- > 80

$$Average = \frac{75 + 71 + 74 + 80}{4} = \frac{300}{4} => 75$$

2010 exceeds the annual average

9 . Percentage of girls in each of the colleges in the figure. Total number of girls is 1800 . What is the number of girls in college ID ?



A) 188 b) 198 c) 176 d) 164

By pie chart

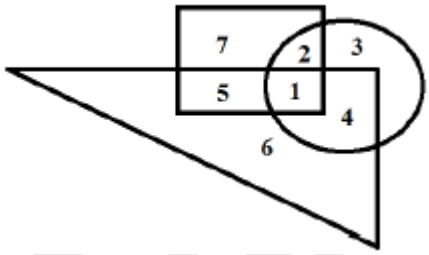
100 % ---→ 1800

11 % ---→ x

$$x = \frac{1800 \times 11}{100} = 18 \times 11$$

= 198

10 . The sum of number common to two diagram is



A) 8 b) 9 c) 10 d) 11

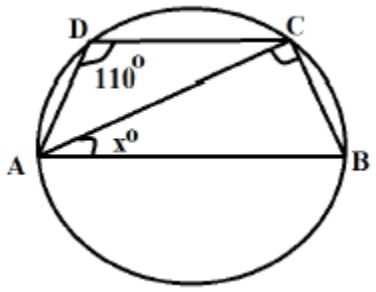
Square + triangle = 5

Triangle + circle = 4

Square + circle = 2

Sum = 5 + 4 + 2 = 11

11 . From the cyclic quadrilateral find x



A) 90 degree b) 60 degree c) 30 degree d) 20 degree

Cyclic quadrilateral are supplementary

So $\angle D + \angle B = 180^0$

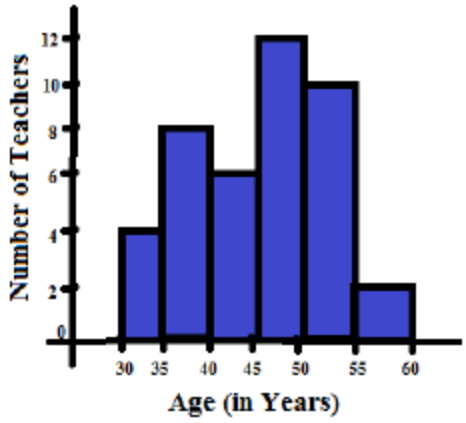
$\angle B = 70^0$

$\angle c = 90^0$ $\angle b = 70^0$ so $\triangle^{gle}$ ACB = 180^0

$\angle A = 180 - 160^0$

Ans : $\angle A = 20^0$

12 . The number of teacher less than 50 years of age from the histogram given below is



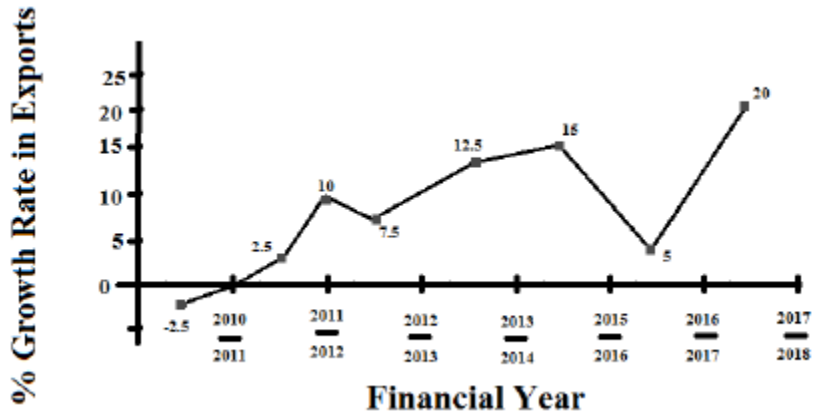
A) 18 b) 28 c) 29 d) 30

----→ 4 + 8 + 6 + 12

= > 30

Ans : 30

13 . From the graph given below find out during how many years the growth rate was below the average growth rate over the given years .



A) 3 b) 4 c) 5 d) 2

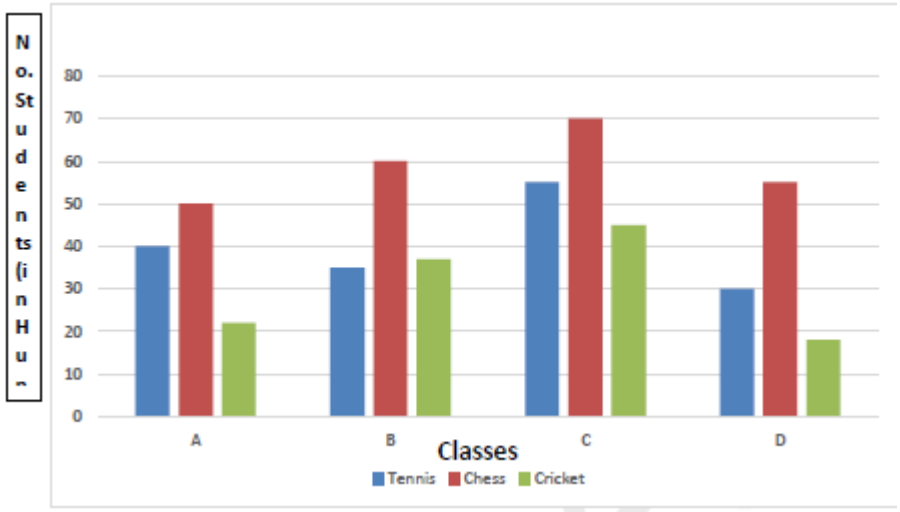
$$average = \frac{-2.5 + 2.5 + 10 + 7.5 + 12.5 + 15 + 5 + 20}{8}$$

= 8.75

Less than 8.75 are -2.5 , 2.5 , 7.5 , 5

Ans : 4

14 . the ratio of number of students taking crickets to the number of students taking tennis in class C from the following diagram is



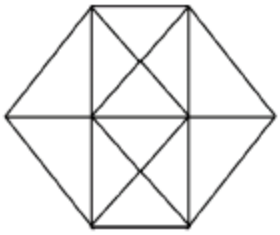
A) 9 : 11 b) 11 : 9 c) 9 : 2 d) 2 : 9

Students taking cricket : students taking tennis

45 : 55

9 : 11

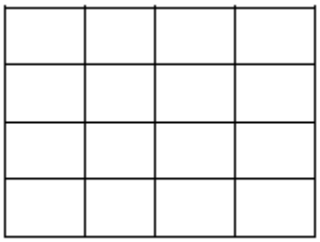
15 . The number of triangles in the below figure is



A) 20 b) 24 c) 28 d) 32

Ans : 28

16 . How many squres are there in the following figure



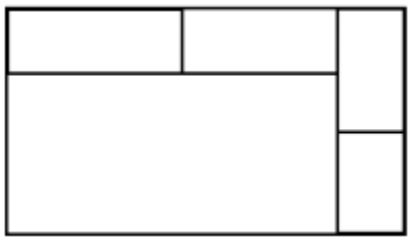
A) 16 b) 17 c) 25 d) 30

If the number are boxes ‘n’ is equal in both column and row,then

N=4,

16+9+4+1=30

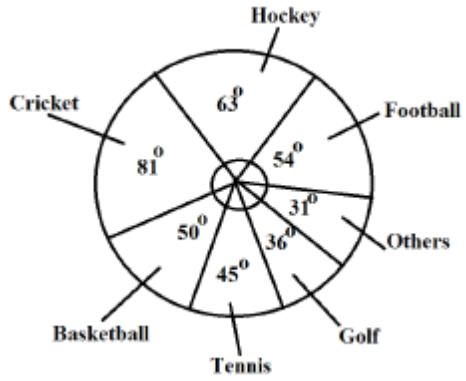
17 . how many rectangle are there in the figure below :



A) 6 b) 7 c) 8 d) 9

Ans : 9

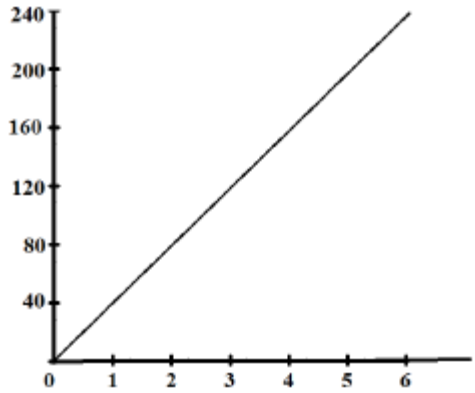
18 . The circle graph given here shows the spending of country on various sports during a particular year. Study the graph and answer the question : If the total



A) RS. 800000 b) Rs. 80,00,000 c) Rs.120,00,000 d) Rs.160,00,000

Ans : Rs.80,00,000

19 . The distance travelled by a car in 4.5 hours from the graph below is



A) 180 Km b) 140 Km c) 200 km d) 220 km

Distance travelled by car in 4.5 hour is

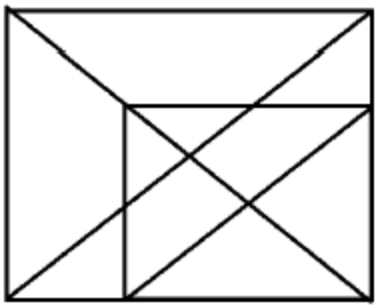
For 1 hour dist travelled is 40Km

For 4.5 hr ---→ 40 X 4.5

= 180 Km

Ans : 180 Km

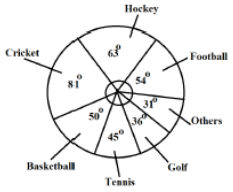
20 . How many triangles are there in the figure given below :



A) 16 b) 18 c) 19 d) 20

Ans : 19

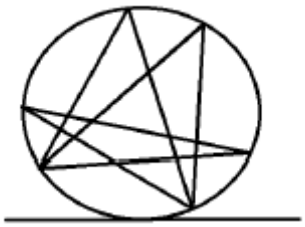
21 . The circle graph given here shows the spending of a country on various sports during a particular year. Study the graph and answer the question



A) 22 2/9 % b) 27 % c) 33 1/3 % d) 37 ½ %

Ans : 33 1/3 %

22 . How many triangles are there in the given figure :

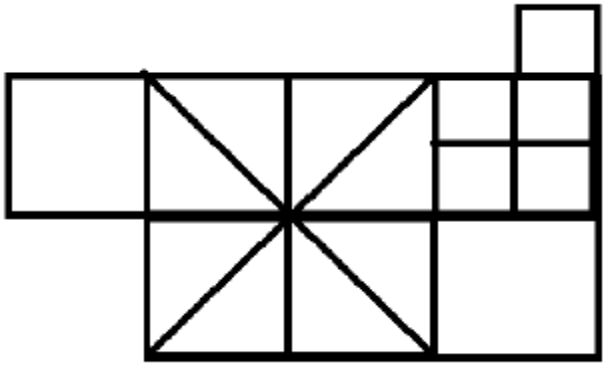


A) 28 b) 26 c) 24 d) 22

Ans : 28

]

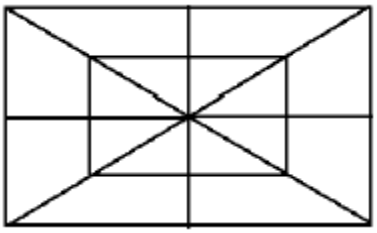
23 . How many squares are there in the given figure :



A) 9 b) 14 c) 14 d) 16

Ans : 14

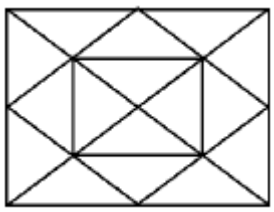
24 . How many straight lines are there in the figure



A) 10 b) 12 c) 16 d) 18

Ans : 12

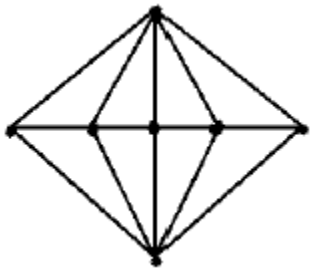
25 . How many squres are there in the figure given below :



A) 4 b) 5 c) 6 d) 7

Ans : 7

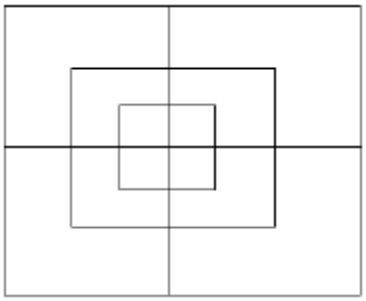
26 . How many triangles are there in the following figure ?



A) 10 b) 14 c) 20 d) 22

Ans : 20

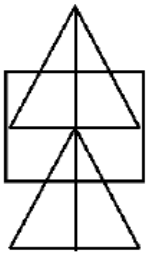
27 . How many squares are there in the figure below



A) 16 b) 15 c) 14 d) 12

Ans : 15

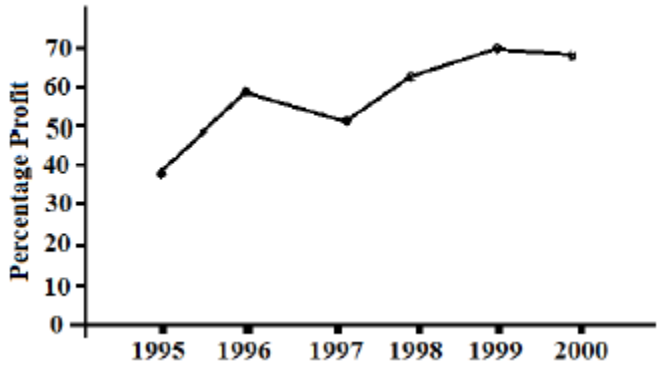
28 . Count the number of triangles in the figure



A) 17 b) 13 c) 15 d) 16

Ans : 16

29 . From the Followng graph which of the following years was the ratio of income to expenditure the minimum :



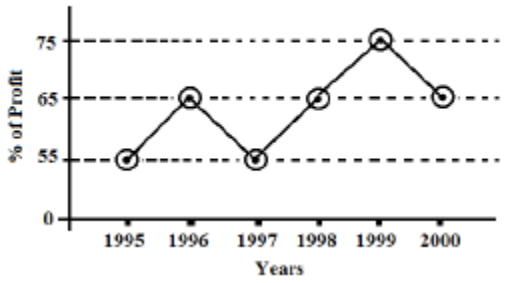
A) 1996 b) 1995 c) 1998 d) 2000

Income : expenditute is 40 % in 1995

So 1995 has minimum income to expenditute

Ans : 1995

30 . Percent profit earned by a company over the year is given in the following graph using the formula % of profit = $\frac{income-expenditute}{expenditute} X100$



In the income in 1988 was Rs.264crores what was the expenditute in 1998?

A) 160 crores b) 140 crores c) 104 crores d) 185 crores

$\%profit = \frac{income-exp}{exp}$, income=264cr

$\frac{65}{100} = income/\exp -1$

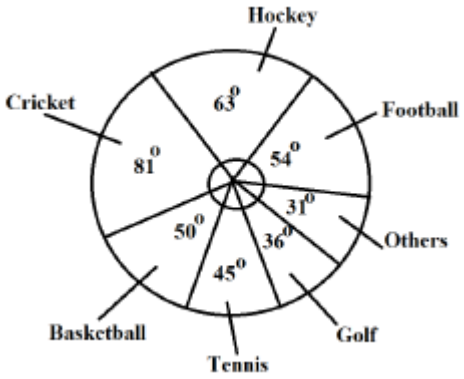
$\frac{income}{ex} = \frac{1+65}{100} = \frac{165}{100}$

$exp = \frac{264}{1.65}$

exp = 160 crores

Ans : 160 crores

31 . The circle graph given here shows the spending of a country on various sports during a particular year. Study the graph and answer the question .



What percent of the total spendings is spent on tennis ?

A) 12.5 % b) 22.5 % c) 25 % d) 45 %

100 % = 360^0

For tennis -→ 45^0

360^0 = 100 %

45^0 = x

$$x = 100 \times \frac{45}{360}$$

$$x = \frac{50}{4}$$

X = 12.5 %

Ans : 12.5 %

32 . Monthly expenditute of a person whose monthly salary is 9000 is as shown in the diagram The percentage of money spent for medical expence is

A) 10 % b) 20 % c) 30 % d) 40 %

100% = 360^0

360^0 = 9000

72^0 = x

$x = 9000 \times \frac{72}{360}$

X = 1800

Ans : 1800

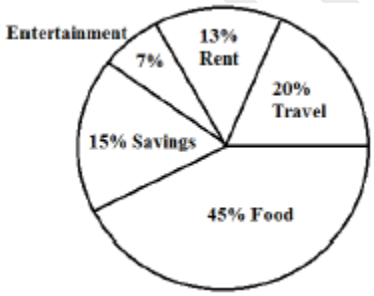
9000 = 100 %

1800 = x

$x = \frac{100X1800}{9000}$

x = 20 %

33 . A man earns Rs.28000 as monthly salary.His expenditure and savings are given in the diagram. How much he spent every month other than food as expenditure .



A) 11200 b) 11300 c) 15400 d) 12500

100 % = 28000

Food = 45% savings = 15% [other than food and savings]

100 % = 28000

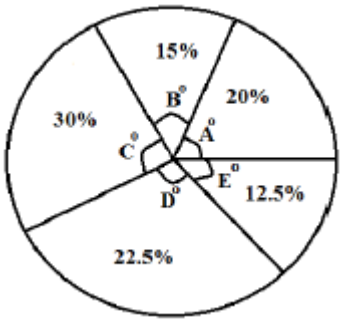
40 % = x

$x = \frac{28000 \times 40}{100}$

X= 11200

Ans : 11200

34 . From the pie diagram given below find the central angle E degree



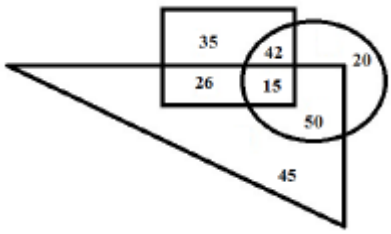
A) 25 degree b) 45 degree c) 50 degreee d) 60 degree

100 5 -→ 360^0

12.5 % --→ x

$x = \frac{360 \times 12.5}{100} = 45^0$

35 . The sum of numbers common to two diagram is



A) 118 b) 110 c) 108 d) 130

The sum of numbers common to two degree is

Square + circle = 43

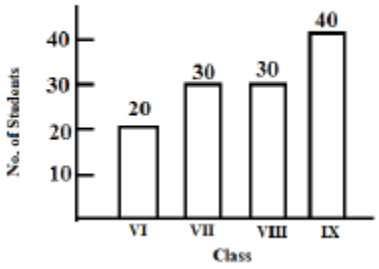
Triangle + circle = 50

Square + triangle = 26

42 + 50 + 26 = 118

Ans : 118

36 . The ratio of the number of students in the class VII to class IX is



A) 2 : 3 b) 1 : 1 c) 3 : 4 d) 1 : 2

VII so IX --→ 40

= > 30 : 40

= > 3 : 4