1. Study the following information carefully and answer the questions given below.
Eleven boxes A, B, C, D, E, F, G, H, I, J, K are kept one above the other. Box G is kept at the 5th position from the top. Two boxes are kept between G and H. Box D is kept just above box H. There are as many boxes above box D as below B. Five boxes are kept between box F and box K, which is kept at one of the position below the box G. Box A is kept one of the position above the box F. Only one box is kept between Box G and Box C. Box I is kept above the Box E but not just above. Box E is not kept immediately above or immediately below Box C.
What is the position of Box I ?

(a) 8th from the bottom

(b) 7th from the top

(c) 3rd from the top

(d) 6th from the top

(e) None of these

Correct Choice: (**d**)
Solution:

BOX
D
H
A
F
G
I
C
J
E
K
B

2. Study the following information carefully and answer the questions given below.
Eleven boxes A,B,C,D,E,F,G,H,I,J,K are kept one above the other. Box G is kept at the 5th position from the top. Two boxes are kept between G and H. Box D is kept just above box H. There are as many boxes above box D as below B. Five boxes are kept between box F and box K, which is kept at one of the position below the box G. BOX A is kept one of the position above the box F. Only one book is kept between Box G and Box C. Box I is kept above the Box E but not just above. Box E is not kept immediately above or immediately below Box C.

How many boxes are kept between box E and box H?

(a) Seven

(b) Six

(c) Five

(d) Four

(e) Eight

Correct Choice: (**b**)
Solution:

BOX
D
H
A
F
G
I
C
J
E
K
B

3. Study the following information carefully and answer the questions given below.
Eleven boxes A, B, C, D, E, F, G, H, I, J, K are kept one above the other. Box G is kept at the 5th position from the top. Two boxes are kept between G and H. Box D is kept just above box H. There are as many boxes above box D as below B. Five boxes are kept between box F and box K, which is kept at one of the position below the box G. Box A is kept one of the position above the box F. Only one box is kept between Box G and Box C. Box I is kept above the Box E but not just above. Box E is not kept immediately above or immediately below Box C.

Which among the following statement is true regarding box J?

(a) It is seventh from the bottom

(b) Box K is placed above J

(c) Only two boxes are kept between box B and box J

(d) It is kept just below box H

(e) All are true

Correct Choice: (**c**)
Solution:

BOX
D
H
A
F
G
I
C
J
E
K
B

4. Study the following information carefully and answer the questions given below.
   Eleven boxes A, B, C, D, E, F, G, H, I, J, K are kept one above the other. Box G is kept at the 5th position from the top. Two boxes are kept between G and H. Box D is kept just above box H. There are as many boxes above box D as below B. Five boxes are kept between box F and box K, which is kept at one of the position below the box G. Box A is kept one of the position above the box F. Only one box is kept between Box G and Box C. Box I is kept above the Box E but not just above. Box E is not kept immediately above or immediately below Box C.

   Which of the following represents the boxes kept between boxes A and I ?

   (a) C,B

   (b) A,K

   (c) F,G

   (d) J,D

   (e) None of these

   Correct Choice: (**c**)
   Solution:

BOX
D
H
A
F
G
I
C
J
E
K
B

5. Study the following information carefully and answer the questions given below.
   Eleven boxes A, B, C, D, E, F, G, H, I, J, K are kept one above the other. Box G is kept at the 5th position from the top. Two boxes are kept between G and H. Box D is kept just above box H. There are as many boxes above box D as below B. Five boxes are kept between box F and box K, which is kept at one of the position below the box G. Box A is kept one of the position above the box F. Only one box is kept between Box G and Box C. Box I is kept above the Box E but not just above. Box E is not kept immediately above or immediately below Box C.

   Which of the following box is kept just above box B?

   (a) C

   (b) K

   (c) F

   (d) D

   (e) None of these

Correct Choice: (**b**)

Solution:

BOX
D
H
A
F
G
I
C
J
E
K
B

6. Study the following information carefully and answer the given questions.

Point B is 14 m east of point A. Point C is 9 m north of point B. Point D is 12 m east of point C. Point E is 15 m south of point D. Point F is 30 m west of point E. Point G is 10 m north of point F. Point H is 18 m east of point G.

If point X is 6 m south of point A then which point is at shortest distance from point X?

(a) E

(b) A

(c) F

(d) B

(e) G

Correct Choice: (**c**)

Solution:
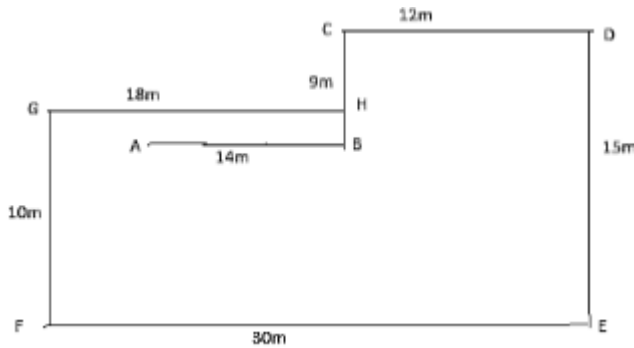
7. Study the following information carefully and answer the given questions.

Point B is 14 m east of point A. Point C is 9 m north of point B. Point D is 12 m east of point C. Point E is 15 m south of point D. Point F is 30 m west of point E. Point G is 10 m north of point F. Point H is 18 m east of point G.

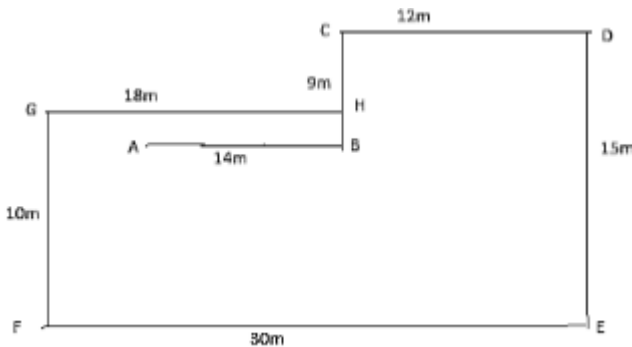What is the distance point C from point H?

(a) 9 m

(b) 5m

(c) 4m

(d) 6m

(e) 7m

Correct Choice: (**b**)

Solution:

8. Study the following information carefully and answer the given questions.
   Point B is 14 m east of point A. Point C is 9 m north of point B. Point D is 12 m east of point C. Point E is 15 m south of point D. Point F is 30 m west of point E. Point G is 10 m north of point F. Point H is 18 m east of point G.

   Point B is in which direction with respect of point H?

   (a) South

   (b) Southeast
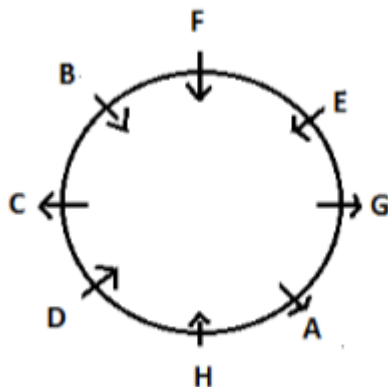
   (c) North

   (d) North–east

   (e) North–west

   Correct Choice: **(d)**
   Solution:
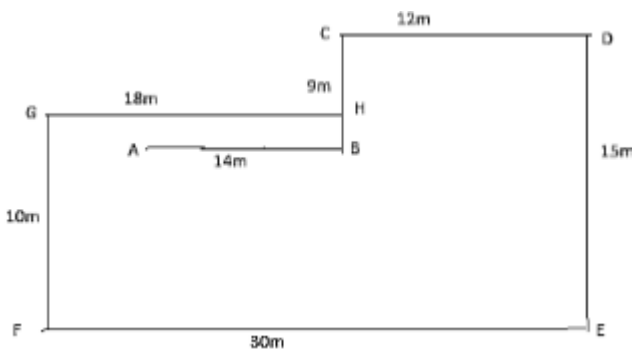
9. Study the following information carefully and answer the given questions.
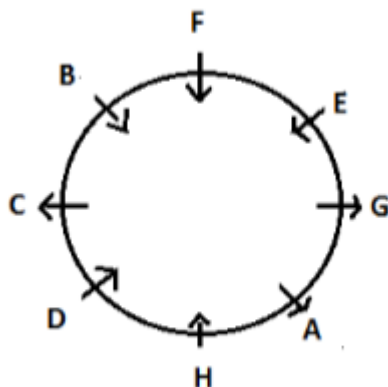   Eight persons A, B, C, D, E, F, G and H are sitting in a circular table such that 5 of them are facing towards the center and the rest are facing away from the centre. Three persons are sitting between F and H, who is facing center. C is second to the right of F and faces opposite direction to F. A sits 3rd to the left of C. B is one of the neighbour of C. Two persons sit between B and G, who is not neighbour of H. G and A face same direction but opposite to F. D is second to the right of G.

   What is the position of E with respect to A?

   (a) Immediate right

   (b) 5th to the right

   (c) 2nd to the right

   (d) Second to the left

   (e) None of these

   Correct Choice: **(d)**

Solution:

10. Study the following information carefully and answer the given questions.
Eight persons A, B, C, D, E, F, G and H are sitting in a circular table such that 5 of them are facing towards the center and the rest are facing away from the centre. Three persons are sitting between F and H, who is facing center. C is second to the right of F and faces opposite direction to F. A sits 3rd to the left of C. B is one of the neighbour of C. Two persons sit between B and G, who is not neighbour of H. G and A face same direction but opposite to F. D is second to the right of G.

How many persons are sitting between C and H, when counted from the left of C?

(a) One

(b) Two

(c) Three

(d) Four

(e) None

Correct Choice: (a)
Solution:

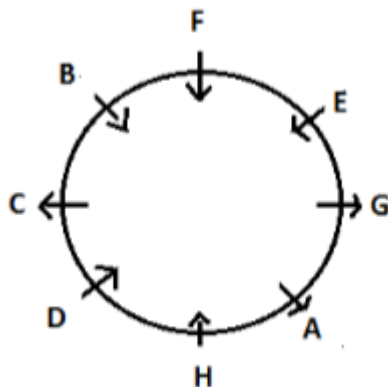11. Study the following information carefully and answer the given questions.
Eight persons A, B, C, D, E, F, G and H are sitting in a circular table such that 5 of them are facing towards the center and the rest are facing away from the centre. Three persons are sitting between F and H, who is facing center. C is second to the right of F and faces opposite direction to F. A sits 3rd to the left of C. B is one of the neighbour of C. Two persons sit between B and G, who is not neighbour of H. G and A face same direction but opposite to F. D is second to the right of G.

Four of the five are alike in a certain way, which among the following does not belongs to that group?

(a) C

(b) B

(c) F

(d) D

(e) E

Correct Choice: (a)

Solution:

F

B

E

C

G

D

A

H

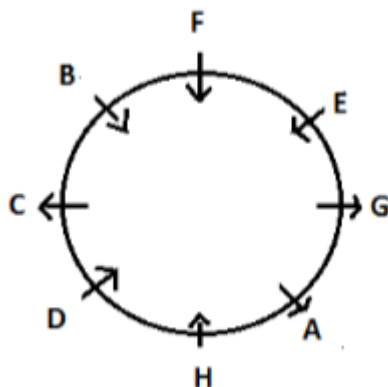12. Study the following information carefully and answer the given questions.
Eight persons A, B, C, D, E, F, G and H are sitting in a circular table such that 5 of them are facing towards the center and the rest are facing away from the centre. Three persons are sitting between F and H, who is facing center. C is second to the right of F and faces opposite direction to F. A sits 3rd to the left of C. B is one of the neighbour of C. Two persons sit between B and G, who is not neighbour of H. G and A face same direction but opposite to F. D is second to the right of G.

Which of the following represents the immediate neighbour of G?

(a) C

(b) B

(c) F

(d) D

(e) A

Correct Choice: (e)
Solution:

F

B

E

C

G

D

A

H

13. Study the following information carefully and answer the given questions.
Eight persons A, B, C, D, E, F, G and H are sitting in a circular table such that 5 of them are facing towards the center and the rest are facing away from the centre. Three persons are sitting between F and H, who is facing center. C is second to the right of F and faces opposite direction to F. A sits 3rd to the left of C. B is one of the neighbour of C. Two persons sit between B and G, who is not neighbour of H. G and A face same direction but opposite to F. D is second to the right of G.

Which of the following is not true regarding F?

(a) It faces towards the center

(b) E is immediate left to F

(c) Two persons sit between F and D, when counted from the right to D

(d) All are true

(e) No one sits between F and B

Correct Choice: (c)

14. Study the following information carefully and answer the given questions.
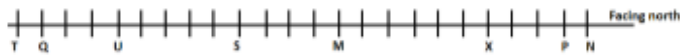Certain number of persons are sitting in a row facing north. M sits 4th to the right of S. 5 persons sit between M and X. C sits at one of the position left to S. The number of persons sit between M and U are same as between S and T. Q is second from one of the extreme ends. Four persons sit between S and U. No one sits to the right of N, who is immediate right to P. X is third left to P. Not more than two persons sit between Q and U.

How many persons are sitting in the raw?

(a) 17

(b) 20

(c) 24

(d) 26

(e) 27

Correct Choice: (**c**)
Solution:

15. Study the following information carefully and answer the given questions.
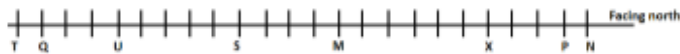   Certain number of persons are sitting in a row facing north. M sits 4th to the right of S. 5 persons sit between M and X. C sits at one of the position left to S. The number of persons sit between M and U are same as between S and T. Q is second from one of the extreme ends. Four persons sit between S and U. No one sits to the right of N, who is immediate right to P. X is third left to P. Not more than two persons sit between Q and U.

    How many persons are sitting between S and T?

    (a) Seven

    (b) Six

    (c) Five

    (d) Four

    (e) Eight

    Correct Choice: (**e**)
    Solution:

16. Study the following information carefully and answer the given questions.
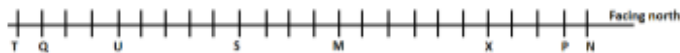   Certain number of persons are sitting in a row facing north. M sits 4th to the right of S. 5 persons sit between M and X. C sits at one of the position left to S. The number of persons sit between M and U are same as between S and T. Q is second from one of the extreme ends. Four persons sit between S and U. No one sits to the right of N, who is immediate right to P. X is third left to P. Not more than two persons sit between Q and U.

    What is the position of U from the left end?

    (a) 6th

    (b) 5th

    (c) 4th

    (d) 2nd

    (e) 3rd

    Correct Choice: (**b**)
    Solution:

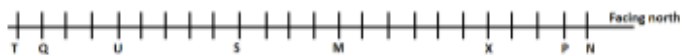17. Study the following information carefully and answer the given questions.
    Certain number of persons are sitting in a row facing north. M sits 4th to the right of S. 5 persons sit between M and X. C sits at one of the position left to S. The number of persons sit between M and U are same as between S and T. Q is second from one of the extreme ends. Four persons sit between S and U. No one sits to the right of N, who is immediate right to P. X is third left to P. Not more than two persons sit between Q and U.

    How many persons are sitting between Q and M?

    (a) Seven

    (b) Eleven

    (c) Ten

    (d) Nine

    (e) Eight

    Correct Choice: (**b**)
    Solution:

18. Study the following information carefully and answer the given questions.
   Certain number of persons are sitting in a row facing north. M sits 4th to the right of S. 5 persons sit between M and X. C sits at one of the position left to S. The number of persons sit between M and U are same as between S and T. Q is second from one of the extreme ends. Four persons sit between S and U. No one sits to the right of N, who is immediate right to P. X is third left to P. Not more than two persons sit between Q and U.

    Which of the following represents the person sitting at the extreme end?

    (a) M

    (b) U

    (c) X

    (d) P

    (e) T

    Correct Choice: (**e**)

Solution:

Facing north

T Q U S M X P N
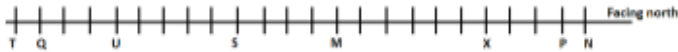
19. If the second, fourth, seventh and eighth letter of the word 'FRACTION' are combined to form a meaningful word, then what will be the third letter from the left in the so formed word. If more than one word formed then the answer is X, If no such word is formed the answer is Z?

(a) O

(b) X

(c) R
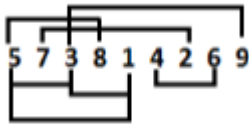
(d) Z

(e) C

Correct Choice: (**c**)
Solution:

2nd, 4th, 7th and 8th letters are R, C, O, N
The meaningful word formed is CORN.

20. How many pair of digits have same number of digits between them in the number "573814269" as in the numeric series?

(a) Five

(b) Four

(c) Six

(d) Three

(e) More than six

Correct Choice: (**e**)
Solution:

5 7 3 8 1 4 2 6 9

21. Study the following information carefully and answer the given questions.
Movies of different duration released on different days starting from Monday to Friday (Starting from Monday). Movie A was released on Tuesday. No movie released between A and the one which is of 75 minutes duration. Only one movie is released between the one which is of 75 minute duration and the one which is of 100 minute duration. No movie released between the one which is of 100 minute and B. Only one movie release after B. B released immediately after 100 minute duration movie. Movie C released immediately after the one which is of 130 minute duration. More than two movies released in between C and D. The movie which is of 90 minute duration released before E. One of movie was 20 minute more duration than E.

How many movies were released after E?

(a) One

(b) Two

(c) None

(d) Three

(e) More than three

Correct Choice: (**b**)
Solution:

Days	Movies	Duration
Monday	D	75
Tuesday	A	90
Wednesday	E	100
Thursday	B	130
Friday	C	120

22. Study the following information carefully and answer the given questions.
Movies of different duration released on different days starting from Monday to Friday (Starting from Monday). Movie A was released on Tuesday. No movie released between A and the one which is of 75 minutes duration. Only one movie is released between the one which is of 75 minute duration and the one which is of 100 minute duration. No movie released between the one which is of 100 minute and B. Only one movie release after B. B released immediately after 100 minute duration movie. Movie C released immediately after the one which is of 130 minute duration. More than two movies released in between C and D.The movie which is of 90 minute duration released before E.One of movie was 20 minute more duration than E.

Which of the following movie was of 150 minute duration?

(a) E

(b) A

(c) There is no such movie

(d) C

Correct Choice: (**c**)
Solution:

Days	Movies	Duration
Monday	D	75
Tuesday	A	90
Wednesday	E	100
Thursday	B	130
Friday	C	120

23. Study the following information carefully and answer the given questions.

Movies of different duration released on different days starting from Monday to Friday (Starting from Monday). Movie A was released on Tuesday. No movie released between A and the one which is of 75 minutes duration. Only one movie is released between the one which is of 75 minute duration and the one which is of 100 minute duration. No movie released between the one which is of 100 minute and B. Only one movie release after B. B released immediately after 100 minute duration movie. Movie C released immediately after the one which is of 130 minute duration. More than two movies released in between C and D.The movie which is of 90 minute duration released before E.One of movie was 20 minute more duration than E.

What is the total duration of movie E and D together?

(a) 135

(b) 225

(c) 165

(d) 175

(e) 190

Correct Choice: (**d**)
Solution:

Days	Movies	Duration
Monday	D	75
Tuesday	A	90
Wednesday	E	100
Thursday	B	130
Friday	C	120

24. Study the following information carefully and answer the given questions.

Movies of different duration released on different days starting from Monday to Friday (Starting from Monday). Movie A was released on Tuesday. No movie released between A and the one which is of 75 minutes duration. Only one movie is released between the one which is of 75 minute duration and the one which is of 100 minute duration. No movie released between the one which is of 100 minute and B. Only one movie release after B. B released immediately after 100 minute duration movie. Movie C released immediately after the one which is of 130 minute duration. More than two movies released in between C and D.The movie which is of 90 minute duration released before E.One of movie was 20 minute more duration than E.

Which of the following statement is true regarding B ?

(a) The movie released after B is of 120 minute duration

(b) Two movie released in between A and B

(c) Movie B is of 100 minute duration

(d) Total duration of movie B and A is 225 minutes

(e) Movie A released after B

Correct Choice: (**a**)
Solution:

Days	Movies	Duration
Monday	D	75
Tuesday	A	90
Wednesday	E	100
Thursday	B	130
Friday	C	120

25. Study the following information carefully and answer the given questions.

Movies of different duration released on different days starting from Monday to Friday (Starting from Monday). Movie A was released on Tuesday. No movie released between A and the one which is of 75 minutes duration. Only one movie is released between the one which is of 75 minute duration and the one which is of 100 minute duration. No movie released between the one which is of 100 minute and B. Only one movie release after B. B released immediately after 100 minute duration movie. Movie C released immediately after the one which is of 130 minute duration. More than two movies released in between C and D. The movie which is of 90 minute duration released before E. One of movie was 20 minute more duration than E.

Which of the following statements is true?

(a) The movie released before A is of 130 minute duration

(b) Three movies released in between A and E

Days	Movies	Duration
Monday	D	75
Tuesday	A	90
Wednesday	E	100
Thursday	B	130
Friday	C	120

26. Study the following information carefully and answer the given questions.
F is the husband of G. K is the mother-in-law of G. H is the father of F. M is the mother of H, P is the mother of K and B.
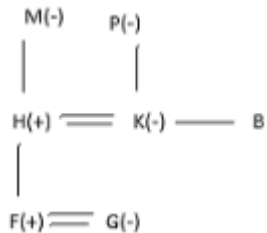If Y is the father of H then how is Y related to M?

(a) Mother

(b) Father

(c) Sister

(d) Brother

(e) Husband

Correct Choice: (e)
Solution:

27. Study the following information carefully and answer the given questions.
F is the husband of G. K is the mother-in-law of G. H is the father of F. M is the mother of H, P is the mother of K and B.
How is P related to F?
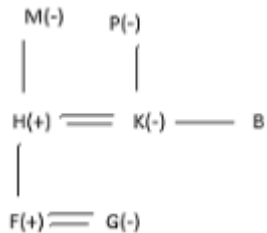
(a) Grandfather

(b) Aunt

(c) Mother

(d) Grandmother

(e) Wife

Correct Choice: (d)
Solution:

28. Study the following information carefully and answer the given questions.
F is the husband of G. K is the mother-in-law of G. H is the father of F. M is the mother of H, P is the mother of K and B.

How is B related to H?

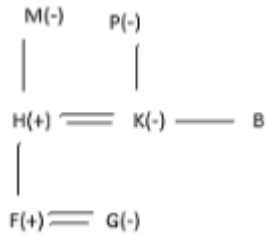(a) Sister

(b) Brother

(c) Husband

(d) Can't determine

(e) Wife

Correct Choice: (d)

Solution:

29. Study the following information carefully and answer the given questions.
There are six persons M, N, O , P, Q, R of different heights. N is shorter than M but taller than Q. only two person are taller than M. R is taller than Q and O. Q is not the shortest. The one who is second shortest is 154 cm. P is not the shortest person.

If M is 19m taller than Q then what is the height of M?

(a) 190m

(b) 181m

(c) 175m

(d) 130m

(e) 173m

Correct Choice: (**e**)
Solution:

R/P > R/P > M > N > Q > O

30. Study the following information carefully and answer the given questions.
There are six persons M, N, O , P, Q, R of different heights. N is shorter than M but taller than Q. only two person are taller than M. R is taller than qQ and O. Q is not the shortest. The one who is second shortest is 154 cm. P is not the shortest person.

If P is 181 m then which of the following is true?
1.Only one person is taller than P
2.The difference between the heights of P and Q is 27 m
3.O is the shortest person

(a) Only 1

(b) Only 2 and 1

(c) All are true

(d) Only 3 and 2

(e) Only 3 and 1

Correct Choice: (**d**)
Solution:

R/P > R/P > M > N > Q > O

31. Study the following information carefully and answer the given questions.
There are six persons M, N, O , P, Q, R of different heights. N is shorter than M but taller than Q. only two person are taller than M. R is taller than qQ and O. Q is not the shortest. The one who is second shortest is 154 cm. P is not the shortest person.

How many persons are shorter than N?

(a) One

(b) Two

(c) None

(d) Three

(e) More than three

Correct Choice: (**b**)
Solution:

R/P > R/P > M > N > Q > O

32. Question consists of two statements followed by two conclusions. Consider the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and decide which of the given conclusions logically follow from the given statements using all statements together.

Statements: All grills are Arrow, Some Hat are grills. Some Cell are arrow
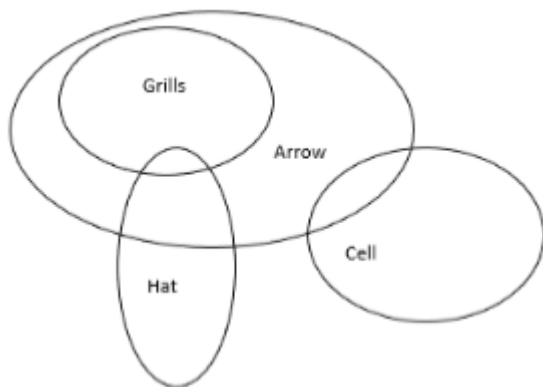Conclusions:
1.Some cell are definitely not grills
2. Some Hat can never be Arrow

(a) Only 1 follows

(b) Only 2 follows

(c) Neither 1 nor 2 follow

(d) Both 1 and 2 follow

Correct Choice: (c)
Solution:

33. Question consists of two statements followed by two conclusions. Consider the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and decide which of the given conclusions logically follow from the given statements using all statements together.

Statements: All grills are Arrow. Some Hat are grills. Some cells are arrow
Conclusions :
1.Some hat are Arrow
2.Some grills are Cell
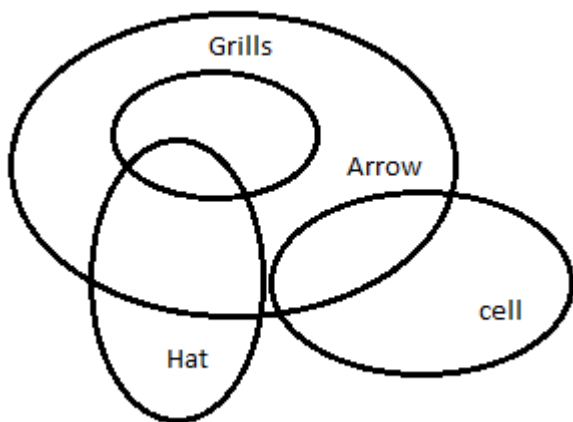
(a) Only 2 follows

(b) Only 1 follows

(c) Either 1 nor 2 follow

(d) Both 1 and 2 follow

(e) Neither 1 or 2 follow

Correct Choice: (b)
Solution:

34. Question consists of two statements followed by two conclusions. Consider the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and decide which of the given conclusions logically follow from the given statements using all statements together.

Statements: Some Door are Fan. No Door is Rose. No fan is Shelf.
Conclusions:
1. Some Fan can never be Rose
2. Some Rose are Shelf is a possibility
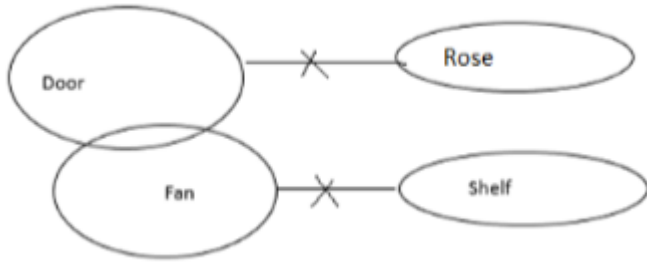
(a) Neither 1 nor 2 follows

(b) Only 1 follows

(c) Either 1 or 2 follow

(d) Both 1 and 2 follow

(e) Only 2 follows

Correct Choice: (d)

Solution:

[Venn diagram: Door, Rose, Fan, Shelf]

35. Question consists of two statements followed by two conclusions. Consider the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and decide which of the given conclusions logically follow from the given statements using all statements together.

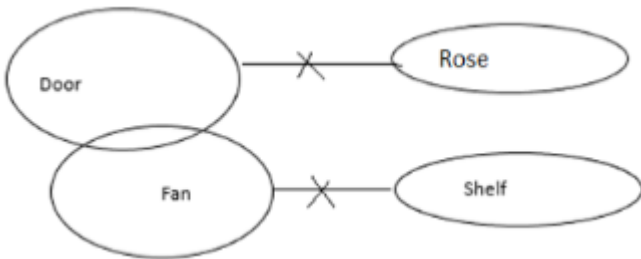   **Statements:** Some Door are Fan. No Door is Rose. No fan is Shelf.
    Conclusions:
    1.All door are a shelf is a possibility
    2.All shelf can be Doors

    (a) Either 1 or 2 follows

    (b) Only 2 follows

    (c) Neither 1 nor 2 follow

    (d) Both 1 and 2 follow

    (e) Only 1 knows

    Correct Choice: (**b**)
    Solution:

[Venn diagram: Door, Rose, Fan, Shelf]

36. Study the following information carefully and answer the given questions.
    14 persons are sitting in two parallel rows such that seven persons are sitting in each row. A, B, C, D, E, F, G are sitting in row 1 facing North while P, Q, R, S, T, U, V are sitting in row 2 facing south. G sits third to the left of A and neither of them sits at an extreme end of the row. The one faces A sits immediate right to T. Only one person sits between T and Q. The one who faces Q sits third to the right of E. S sits to the immediate left of V. S neither faces G nor E. D is the immediate neighbour of one who faces S. The one who faces C sits fifth to the left of P. B sits third to the left of F. U sits at one of position to the right of R.

    Four of the following are alike in a certain way so form a group which of the following does not belong to that group?

    (a) U

    (b) B

    (c) T

    (d) C

    (e) P

    Correct Choice: (**e**)
    Solution:

    U P V S Q R T Row-2

    B E G F D A C Row-1

37. Study the following information carefully and answer the given questions.
    14 persons are sitting in two parallel rows such that seven persons are sitting in each row. A, B, C, D, E, F, G are sitting in row 1 facing North while P, Q, R, S, T, U, V are sitting in row 2 facing south. G sits third to the left of A and neither of them sits at an extreme end of the row. The one faces A sits immediate right to T. Only one person sits between T and Q. The one who faces Q sits third to the right of E. S sits to the immediate left of V. S neither faces G nor E. D is the immediate neighbour of one who faces S. The one who faces C sits fifth to the left of P. B sits third to the left of F. U sits at one of position to the right of R.

    How many persons sit between F and C?

    (a) One

    (b) Two

(c) None

(d) Three

(e) More than three

Correct Choice: (**b**)
Solution:

```
U  P  V  S  Q  R  T   Row-2
|--+--+--+--+--+--+--|
```

```
|--+--+--+--+--+--+--|  Row-1
B  E  G  F  D  A  C
```

38. Study the following information carefully and answer the given questions.
14 persons are sitting in two parallel rows such that seven persons are sitting in each row. A, B, C, D, E, F, G are sitting in row 1 facing North while P, Q, R, S, T, U, V are sitting in row 2 facing south. G sits third to the left of A and neither of them sits at an extreme end of the row. The one faces A sits immediate right to T. Only one person sits between T and Q. The one who faces Q sits third to the right of E. S sits to the immediate left of V. S neither faces G nor E. D is the immediate neighbour of one who faces S. The one who faces C sits fifth to the left of P. B sits third to the left of F. U sits at one of position to the right of R.

Which of the following is not true regarding U?

(a) No one sits to the right of U
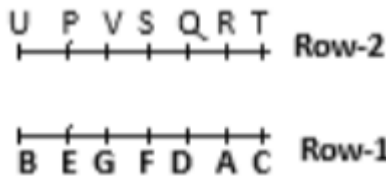
(b) U sits third to the right of Q

(c) P is an immediate neighbour of U

(d) E is an immediate neighbour of the one who faces U

(e) Only one person sits between U and S

Correct Choice: (**b**)
Solution:

```
U  P  V  S  Q  R  T   Row-2
|--+--+--+--+--+--+--|
```

```
|--+--+--+--+--+--+--|  Row-1
B  E  G  F  D  A  C
```

39. Study the following information carefully and answer the given questions.
14 persons are sitting in two parallel rows such that seven persons are sitting in each row. A, B, C, D, E, F, G are sitting in row 1 facing North while P, Q, R, S, T, U, V are sitting in row 2 facing south. G sits third to the left of A and neither of them sits at an extreme end of the row. The one faces A sits immediate right to T. Only one person sits between T and Q. The one who faces Q sits third to the right of E. S sits to the immediate left of V. S neither faces G nor E. D is the immediate neighbour of one who faces S. The one who faces C sits fifth to the left of P. B sits third to the left of F. U sits at one of position to the right of R.

What is the position of C with respect to A?

(a) Second to the left

(b) Third to the right

(c) Immediate right

(d) Immediate left

(e) second to the right

Correct Choice: (**c**)
Solution:

```
U  P  V  S  Q  R  T   Row-2
|--+--+--+--+--+--+--|
```

```
|--+--+--+--+--+--+--|  Row-1
B  E  G  F  D  A  C
```

40. Study the following information carefully and answer the given questions.
14 persons are sitting in two parallel rows such that seven persons are sitting in each row. A, B, C, D, E, F, G are sitting in row 1 facing North while P, Q, R, S, T, U, V are sitting in row 2 facing south. G sits third to the left of A and neither of them sits at an extreme end of the row. The one faces A sits immediate right to T. Only one person sits between T and Q. The one who faces Q sits third to the right of E. S sits to the immediate left of V. S neither faces G nor E. D is the immediate neighbour of one who faces S. The one who faces C sits fifth to the left of P. B sits third to the left of F. U sits at one of position to the right of R.

What is the position of B with respect to D?

(a) Third to the left

(b) Second to the left

(c) Fourth to the left

(d) Third to the right

Correct Choice: **(c)**
Solution:


```
U  P  V  S  Q  R  T
├──┼──┼──┼──┼──┼──┤   Row-2
```

```
├──┼──┼──┼──┼──┼──┤   Row-1
B  E  G  F  D  A  C
```

41. Find the wrong number in the following number series?
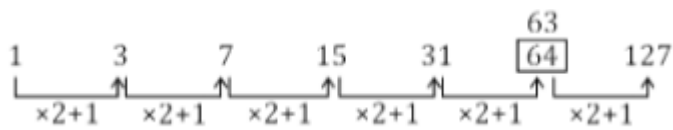1, 3, 7, 15, 31, 64, 127

(a) 1

(b) 3

(c) 15

(d) 64

(e) 127

Correct Choice: **(d)**
Solution:


```
                            63
1        3        7        15       31      [64]      127
└──×2+1──┴──×2+1──┴──×2+1──┴──×2+1──┴──×2+1──┴──×2+1──┘
```

42. Find the wrong number in the following number series?
1, 15, 119, 475, 949, 947, 473

(a) 947

(b) 475

(c) 15

(d) 473

(e) 1

Correct Choice: **(a)**
Solution:


```
                              948
1       15       119      475      949     [947]      473
└─×16-1─┴──×8-1──┴──×4-1──┴──×2-1──┴──×1-1──┴──×0.5-1──┘
```
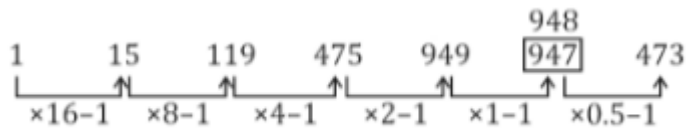
43. Find the wrong number in the following number series?
250,260, 291, 314, 340, 370, 405

(a) 370

(b) 314

(c) 260

(d) 405

(e) 250

Correct Choice: **(c)**
Solution:


```
        270
250    [260]    291     314     340     370     405
└─+20──┴──+21──┴──+23──┴──+26──┴──+30──┴──+35──┘
   └─+1──┴─+2──┴──+3───┴──+4───┴──+5───┘
```
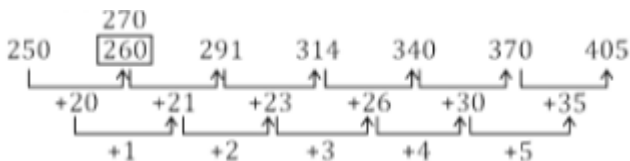
44. Find the wrong number in the following number series?
750, 535, 411, 348, 314

(a) 315

(b) 750

(c) 411

(d) 348

Correct Choice: **(e)**
Solution:

315
750   535   411   348   322   [314]   31£
  └─215─┘ └─124─┘ └─63─┘ └─26─┘ └─7─┘ └─0─┘
     ↑   ↑   ↑   ↑   ↑   ↑
   6^3-1 5^3-1 4^3-1 3^3-1 2^3-1 1^3-1
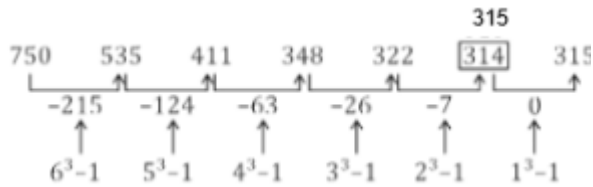
45. Find the wrong number in the following number series?
2, 7, 27, 107, 427, 1708, 6827

(a) 107

(b) 1708

(c) 2

(d) 6827

(e) 7

Correct Choice: **(b)**
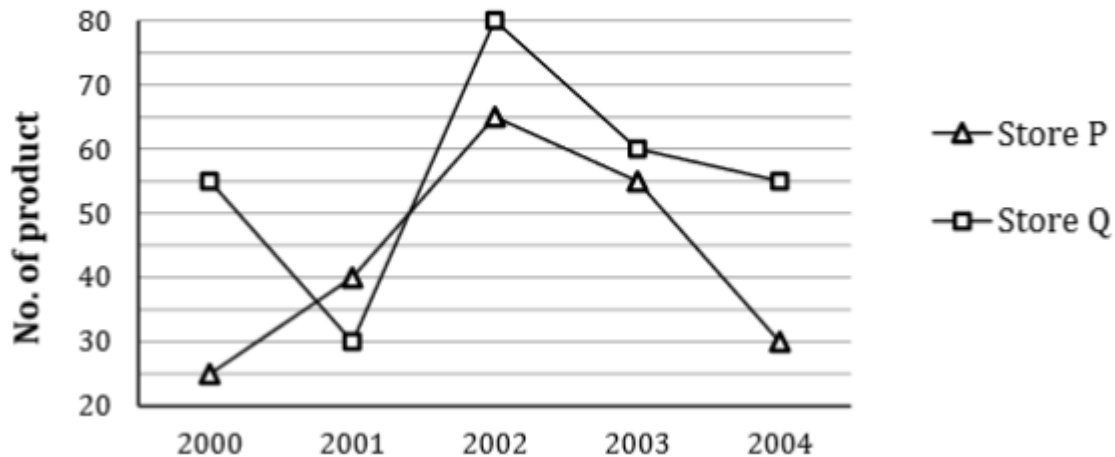Solution:

1707
2   7   27   107   427   [1708]   6827
 └─×4-1─┘ └─×4-1─┘ └─×4-1─┘ └─×4-1─┘ └─×4-1─┘ └─×4-1─┘

Alternate,

1707
2   7   27   107   427   [1708]   6827
 └─+5─┘ └─+20─┘ └─+80─┘ └─+320─┘ └─+1280─┘ └─+5120─┘
    └─×4─┘ └─×4─┘ └─×4─┘ └─×4─┘ └─×4─┘
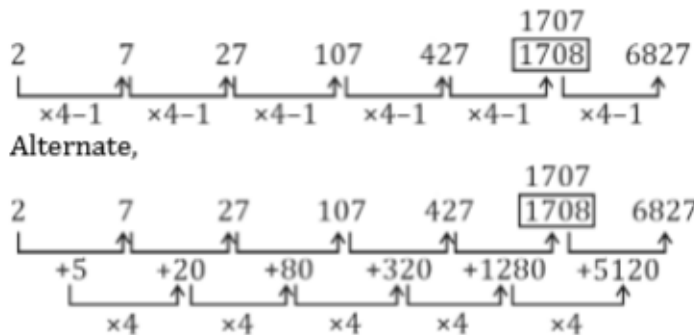
46. Study the line graph carefully and answer the questions given below.
Line graph given below shows the total no. of products for (kid+adult) in two different stores P and Q in five different years.

What is the difference between total no. of products in store P in year 2003 and 2004 together and total no. of products in year 2003 and 2000 together?

(a) None of these

(b) 10

(c) 20

(d) 15

(e) 5

Correct Choice: **(e)**
Solution:

Required difference = (55 + 30) - (55 + 25) = 5

47. Study the line graph carefully and answer the questions given below.
Line graph given below shows the total no. of products for (kid+adult) in two different stores P and Q in five different years.
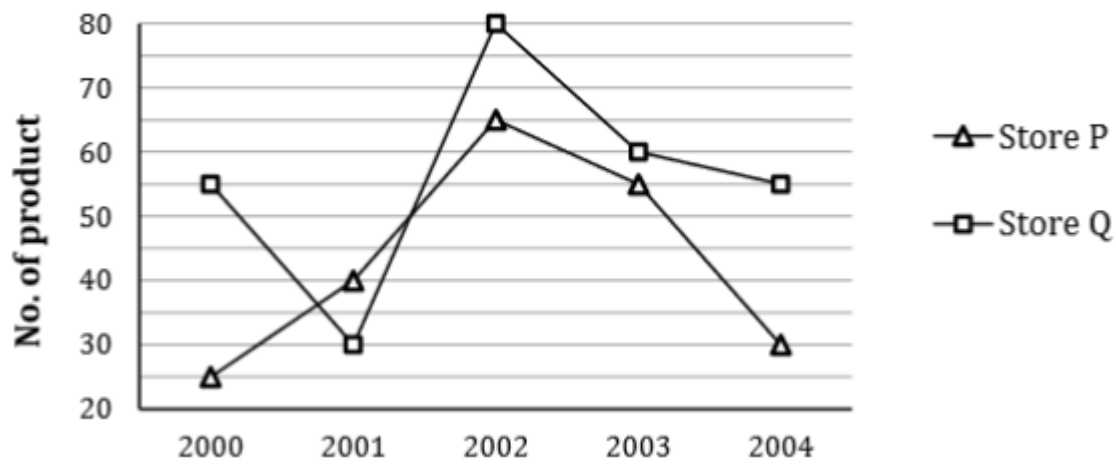
If total products in both the stores in year 2006 is increased by 20 % as compared to year 2004. Then find total no. of products in year 2006?
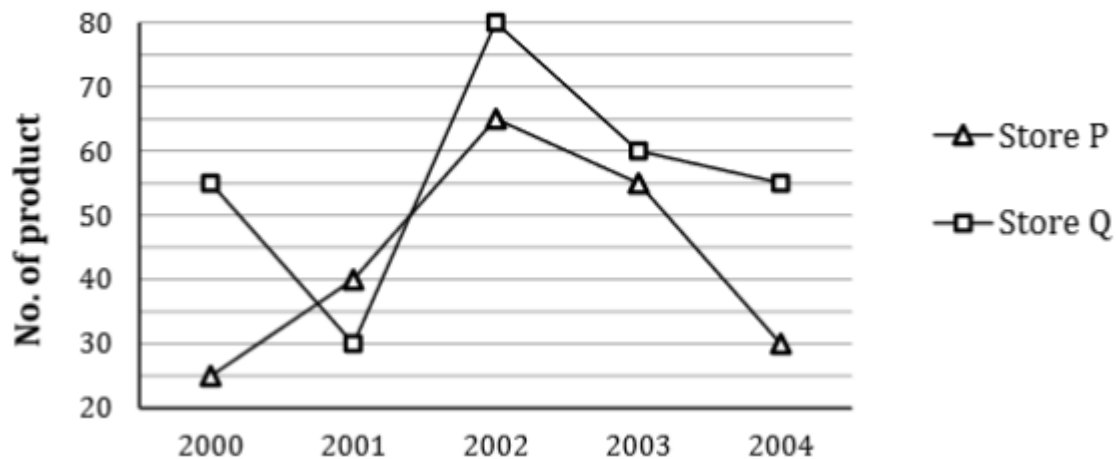
(a) 102

(b) None of these

(c) 96

(d) 108

(e) 92

Correct Choice: (a)
Solution:

Total no. of products in a year 2006 = $(55 + 30) \times \frac{120}{100} = 102$

48. Study the line graph carefully and answer the questions given below.
Line graph given below shows the total no. of products for (kid+adult) in two different stores P and Q in five different years.

What is the ratio of total products in Store Q in year 2002 & 2003 together to total products in store Q in year 2000?

(a) 23:12

(b) 23:11

(c) 28:11

(d) None of these

(e) 27:13

Correct Choice: (c)
Solution:

$\frac{80+60}{55} = \frac{140}{55} = 28 : 11$

49. Study the line graph carefully and answer the questions given below.
Line graph given below shows the total no. of products for (kid+adult) in two different stores P and Q in five different years.
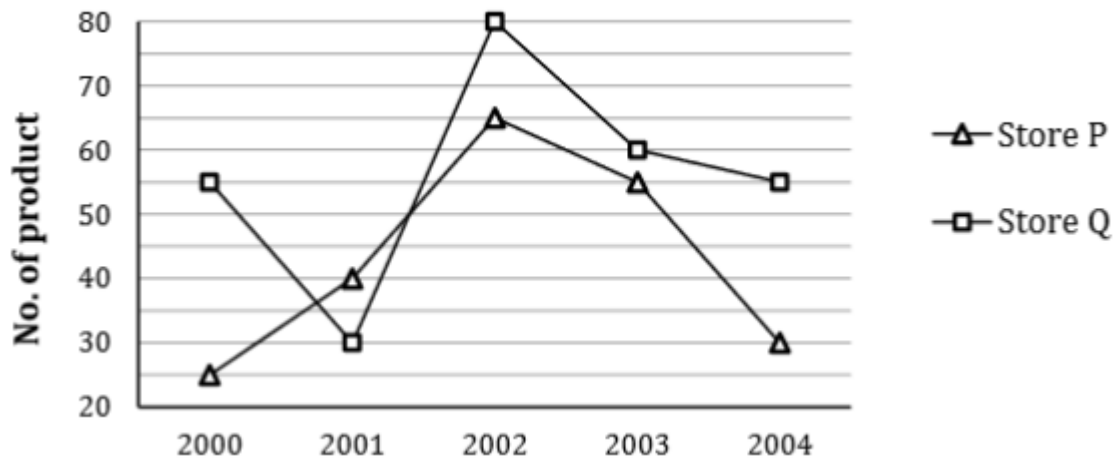
What is the average no. of products in all the years together in store P?
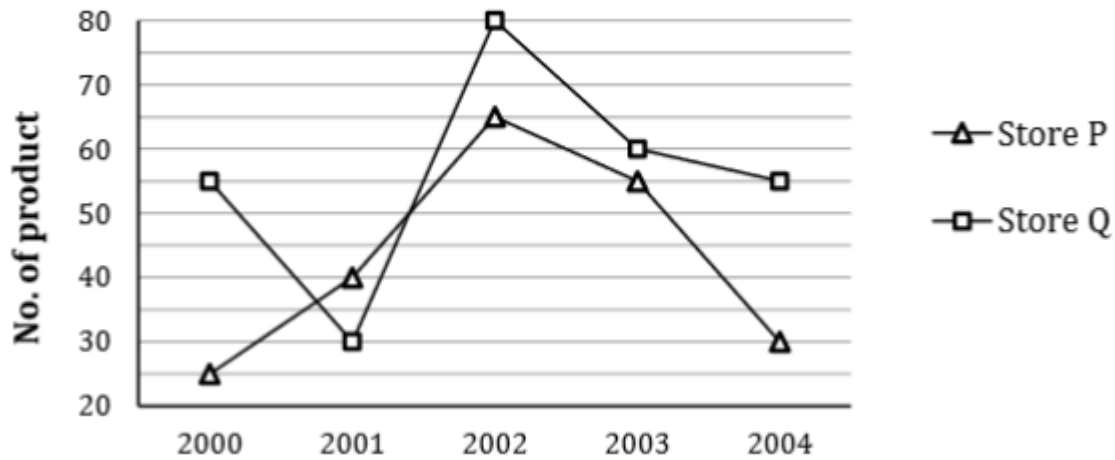
(a) 48

(b) 43

(c) 57

(d) None of these

(e) 53

Correct Choice: (**b**)

Solution:

Required average = $\frac{25+40+65+55+30}{5} = \frac{215}{5} = 43$

50. Study the line graph carefully and answer the questions given below.
Line graph given below shows the total no. of products for (kid+adult) in two different stores P and Q in five different years.

Total no. of products in Store P in years 2003 and in store Q in the year 2004 together is what percent more/less than total no. of products in store Q in year 2000?

(a) 150%

(b) 40%

(c) 125%

(d) 100%

(e) 50%

Correct Choice: (**d**)

Solution:

Required percentage= $\frac{(55+55)-55}{55} \times 100 = \frac{55}{55} \times 100 = 100\%$

51. Solve the given quadratic equations and mark the correct option based on your answer
1. $x^2 - 20x + 96 = 0$
2. $y^2 = 64$

(a) x ≥ y

(b) x ≤ y

(c) x > y

(d) x = y or no relation can be established between x and y

(e) x < y

Correct Choice: (**a**)

Solution:

1. $x^2 - 20x + 96 = 0$
   $x^2 - 12x - 8x + 96 = 0$
   $x(x - 12) - 8(x - 12) = 0$
   $(x - 12)(x - 8) = 0$
   $x = 12, 8$
2. $y^2 = 64$
   $y = \pm 8$
   $\therefore$ x $\geq$ y

52. Solve the given quadratic equations and mark the correct option based on your answer

   1. $4x^2 - 21x + 20 = 0$
   2. $3y^2 - 19y + 30 = 0$

(a) x $\geq$ y

(b) x $\leq$ y

(c) x > y

(d) x = y or no relation can be established between x and y

(e) x < y

Correct Choice: (**d**)

Solution:

1. $4x^2 - 21x + 20 = 0$
$4x^2 - 16x - 5x + 20 = 0$
$4x(x - 4) - 5(x - 4) = 0$
$(4x - 5)(x - 4) = 0$
$x = \frac{5}{4}, 4$
2. $3y^2 - 19y + 30 = 0$
$3y^2 - 9y - 10y + 30 = 0$
$3y(y - 3) - 10(y - 3) = 0$
$(3y - 10)(y - 3) = 0$
y = $\frac{10}{3}, 3$
$\therefore$ no relation can be established between x and y

53. Solve the given quadratic equations and mark the correct option based on your answer
1. $x^2 - 11x + 24 = 0$
2. $y^2 - 12y + 27 = 0$

(a) x $\geq$ y

(b) x $\leq$ y

(c) x > y

(d) x = y or no relation can be established between x and y

(e) x < y

Correct Choice: (**d**)

Solution:

1. $x^2 - 11x + 4 = 0$
   $x^2 - 8x - 3x + 24 = 0$
   $x(x - 8) - 3(x - 8) = 0$
   $(x - 3)(x - 8) = 0$
   $x = 3, 8$

2. $y^2 - 2y + 27 = 0$
   $y^2 - 9y - 3y + 27 = 0$
   $y(y - 9) - 3(y - 9) = 0$
   $(y - 9)(y - 3) = 0$
   $y = 9, 3$

54. Solve the given quadratic equations and mark the correct option based on your answer

   1. $x^2 + 12x + 35 = 0$
   2. $5y^2 + 33y + 40 = 0$

(a) x $\geq$ y

(b) x $\leq$ y

(c) x > y

(d) x = y or no relation can be established between x and y

(e) x < y

Correct Choice: (**b**)

Solution:

1. $x^2 + 2x + 35 = 0$
   $x^2 + 7x + 5x + 35 = 0$
   $x(x + 7) + 5(x + 7) = 0$
   $(x + 7)(x + 5) = 0$
   $x = -7, -5$

2. $5y^2 + 33y + 40 = 0$
   $5y^2 + 25y + 8y + 40 = 0$
   $5y(y + 5) + 8(y + 5) = 0$
   $(y + 5)(5y + 8) = 0$
   $y = \frac{-8}{5}, -5$
   Therefore, y ≥ x

55. Solve the given quadratic equations and mark the correct option based on your answer

    1. $4x^2 + 9x + 5 = 0$

    1. $3y^2 + 5y + 2 = 0$

(a) x ≥ y

(b) x ≤ y

(c) x > y

(d) x = y or no relation can be established between x and y

(e) x < y

Correct Choice: (**b**)

Solution:

1. $4x^2 + 9x + 5 = 0$
   $4x^2 + 4x + 5x + 5 = 0$
   $4x(x + 1)5(x + 1) = 0$
   $(4x + 5)(x + 1) = 0$
   $x = -1, -\frac{5}{4}$
2. $3y^2 + 5y + 2 = 0$
   $3y^2 + 3y + 2y + 2 = 0$
   $3y(y + 1) + 2(y + 1)$
   $(3y + 2)(y + 1) = 0$
   y = -$\frac{2}{3}$,-1
   $\therefore y \geq x$

56. Study the following paragraph carefully and answer the questions given below.
There are 1000 students in a college out of 1000 students some appeared in exams 'X' 'Y' 'Z' while some not. Number of student of appeared in any exams is equal to number of students appeared in exam Z only. Number of students appeared in exam Y is 360. Ratio of number of students appeared in appeared din exam X and Y only to number of students appeared in exam Y and Z only is 2:3. Number of students appeared in exam X and Z both is half of number of students appeared in only exam Z. Number of students appeared in exam X only is 50% more than the number of students appeared in exam Y only. Number of students appeared in all the three exam is 4 % of the total number of students in the college. Number of students appeared in Y exam only is same as number of students appeared in Y and Z only.
How many students appeared atleast in two exams?

(a) 240

(b) 260

(c) 300

(d) 360

(e) 500

Correct Choice: (**c**)

Solution:

Total students = 1000
Let, students appear in exam Z only = a
Total students appeared in exam Y = 360
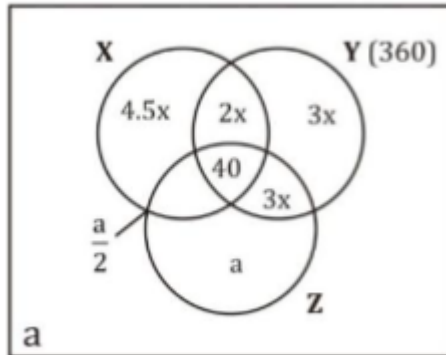Ratio of number of students appeared on exam X and Y only to students appeared in exam Y and Z only = 2:3
Students appeared in exam X and Z both = a/2
Number of students appeared in all three exams = 4/100 × 40
Number of students appeared in Y exam only = No. Of students appeared in Y and Z only = 3x
Number of students appeared in exam X and Y only = 2/3× 3x = 2x

Now, 2x + 3x + 3x + 40 = 360 ⇒ x = 40
$12.5x + a + \frac{a}{2} + a = 1000$
$\frac{5a}{2} = 500$
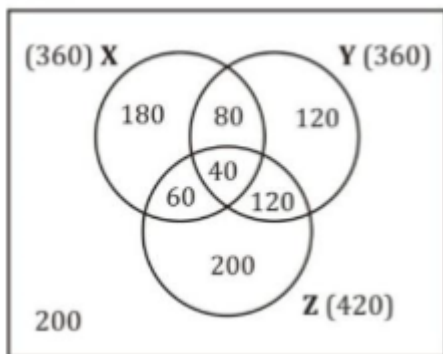
Students appeared in atleast two exams = 80 + 60 + 40 +120 = 300

57. Study the following paragraph carefully and answer the questions given below.
There are 1000 students in a college out of 1000 students some appeared in exams 'X' 'Y' 'Z' while some not. Number of student of appeared in any exams is equal to number of students appeared in exam Z only. Number of students appeared in exam Y is 360. Ratio of number of students appeared in appeared din exam X and Y only to number of students appeared in exam Y and Z only is 2:3. Number of students appeared in exam X and Z both is half of number of students appeared in only exam Z. Number of students appeared in exam X only is 50% more than the number of students appeared in exam Y only. Number of students appeared in all the three exam is 4 % of the total number of students in the college. Number of students appeared in Y exam only is same as number of students appeared in Y and Z only.
How many students appeared in two exams only?

(a) 280

(b) 220

(c) 340

(d) 300

(e) 260

Correct Choice: (e)

Solution:

Total students = 1000
Let, students appear in exam Z only = a
Total students appeared in exam Y = 360
Ratio of number of students appeared on exam X and Y only to students appeared in exam Y and Z
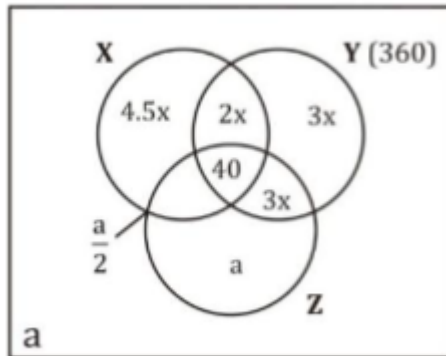only = 2:3
Students appeared in exam X and Z both = a/2
Number of students appeared in all three exams = 4/100 × 40
Number of students appeared in Y exam only = No. Of students appeared in Y and Z only = 3x
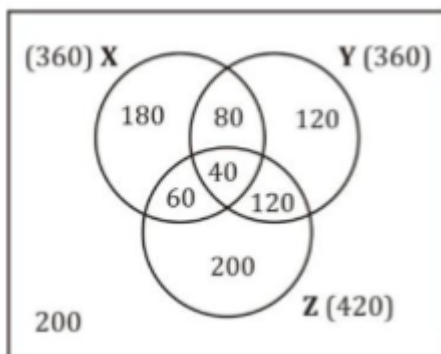Number of students appeared in exam X and Y only = 2/3× 3x = 2x

1000

X   Y (360)

4.5x   2x   3x

40

3x

$\frac{a}{2}$

a

Z

a

Now, 2x + 3x + 3x + 40 = 360 ⇒ x = 40

$12.5x + a + \frac{a}{2} + a = 1000$

$\frac{5a}{2} = 500$

1000

(360) X   Y (360)

180   80   120

40

60   120

200

Z (420)

200

Students appeared in two exams only = 80 + 60 + 120 = 260

58. Study the following paragraph carefully and answer the questions given below.
There are 1000 students in a college out of 1000 students some appeared in exams 'X' 'Y' 'Z' while some not. Number of student of appeared in any exams is equal to number of students appeared in exam Z only. Number of students appeared in exam Y is 360. Ratio of number of students appeared in appeared din exam X and Y only to number of students appeared in exam Y and Z only is 2:3. Number of students appeared in exam X and Z both is half of number of students appeared in only exam Z. Number of students appeared in exam X only is 50% more than the number of students appeared in exam Y only. Number of students appeared in all the three exam is 4 % of the total number of students in the college. Number of students appeared in Y exam only is same as number of students appeared in Y and Z only.
How many students appeared in at most two exams?

(a) 240

(b) 260

(c) 300

(d) 500

(e) 960

Correct Choice: (e)

Solution:

Total students = 1000
Let, students appear in exam Z only = a
Total students appeared in exam Y = 360
Ratio of number of students appeared on exam X and Y only to students appeared in exam Y and Z only = 2:3
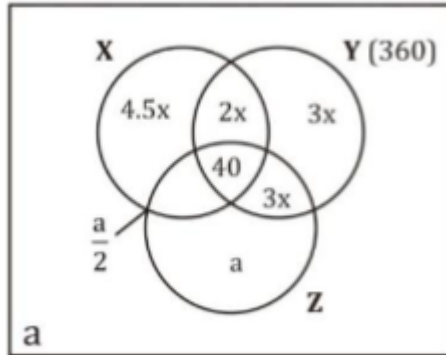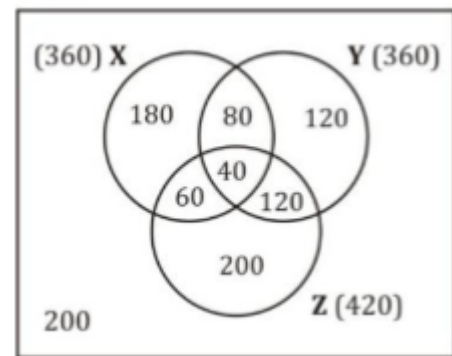Students appeared in exam X and Z both = a/2
Number of students appeared in all three exams = 4/100 × 40
Number of students appeared in Y exam only = No. Of students appeared in Y and Z only = 3x
Number of students appeared in exam X and Y only = 2/3× 3x = 2x

Now, 2x + 3x + 3x + 40 = 360 ⇒ x = 40

$12.5x + a + \frac{a}{2} + a = 1000$

$\frac{5a}{2} = 500$

Students appeared in at most two exams = 180+ 120 + 200 + 60 + 80 + 120 + 100 = 960

59. Study the following paragraph carefully and answer the questions given below.
There are 1000 students in a college out of 1000 students some appeared in exams 'X' 'Y' 'Z' while some not. Number of student of appeared in any exams is equal to number of students appeared in exam Z only. Number of students appeared in exam Y is 360. Ratio of number of students appeared in appeared din exam X and Y only to number of students appeared in exam Y and Z only is 2:3. Number of students appeared in exam X and Z both is half of number of students appeared in only exam Z. Number of students appeared in exam X only is 50% more than the number of students appeared in exam Y only. Number of students appeared in all the three exam is 4 % of the total number of students in the college. Number of students appeared in Y exam only is same as number of students appeared in Y and Z only.

How many students not appeared in exam Y?

(a) 440

(b) 360

(c) 540

(d) 640

(e) None of these

Correct Choice: (d)

Solution:

Total students = 1000
Let, students appear in exam Z only = a
Total students appeared in exam Y = 360
Ratio of number of students appeared on exam X and Y only to students appeared in exam Y and Z only = 2:3
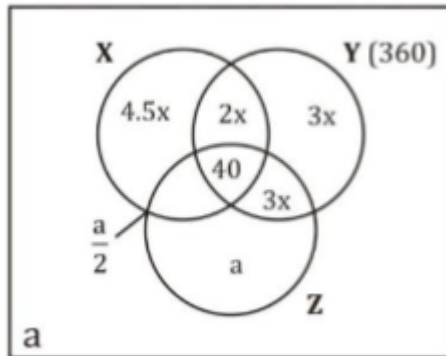Students appeared in exam X and Z both = a/2
Number of students appeared in all three exams = 4/100 × 40
Number of students appeared in Y exam only = No. Of students appeared in Y and Z only = 3x
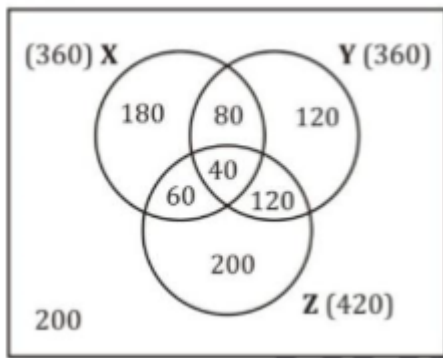Number of students appeared in exam X and Y only = 2/3× 3x = 2x

1000

Now, 2x + 3x + 3x + 40 = 360 ⇒ x = 40

$12.5x + a + \frac{a}{2} + a = 1000$

$\frac{5a}{2} = 500$

1000

Student not appeared in exam Y = 1000 - 360 = 640

60. Study the following paragraph carefully and answer the questions given below.
There are 1000 students in a college out of 1000 students some appeared in exams 'X' 'Y' 'Z' while some not. Number of student of appeared in any exams is equal to number of students appeared in exam Z only. Number of students appeared in exam Y is 360. Ratio of number of students appeared in appeared din exam X and Y only to number of students appeared in exam Y and Z only is 2:3. Number of students appeared in exam X and Z both is half of number of students appeared in only exam Z. Number of students appeared in exam X only is 50% more than the number of students appeared in exam Y only. Number of students appeared in all the three exam is 4 % of the total number of students in the college. Number of students appeared in Y exam only is same as number of students appeared in Y and Z only.
How many students appeared in exam X or exam Z?

(a) 240

(b) 360

(c) 500

(d) 680

(e) 760

Correct Choice: (d)

Solution:

Total students = 1000
Let, students appear in exam Z only = a
Total students appeared in exam Y = 360
Ratio of number of students appeared on exam X and Y only to students appeared in exam Y and Z only = 2:3
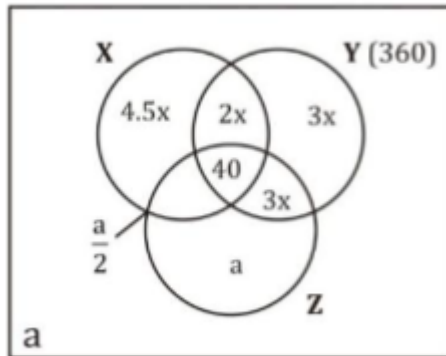Students appeared in exam X and Z both = a/2
Number of students appeared in all three exams = 4/100 × 40
Number of students appeared in Y exam only = No. Of students appeared in Y and Z only = 3x
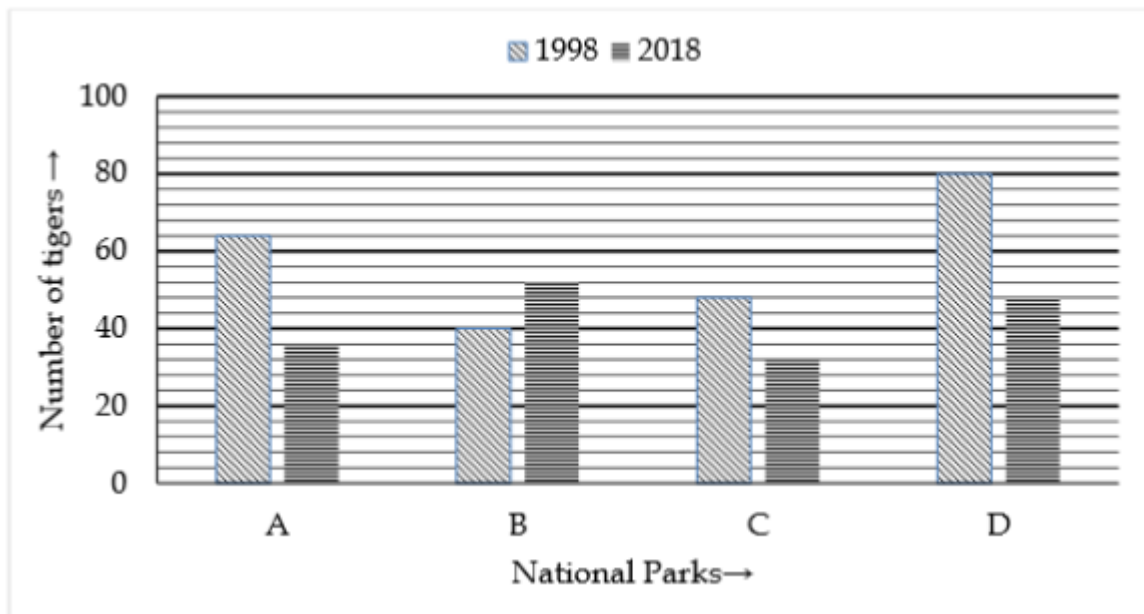Number of students appeared in exam X and Y only = 2/3× 3x = 2x

Now, 2x + 3x + 3x + 40 = 360 ⇒ x = 40

$$12.5x + a + \frac{a}{2} + a = 1000$$

$$\frac{5a}{2} = 500$$

Student appeared in exams X or in exam Z = 180 + 60 + 40 + 80 + 200 + 120 = 680

61. Barchart given below shows number of tigers in different national parks ie, A to D of a country in two different years. Study the data carefully and answer the following questions

,

Number of tigers in national park B and C together in 2018 is how much less more/ less than number of tigers in national park A and D together in 1998?

(a) 40

(b) 44

(c) 52

(d) 60

(e) 72

Correct Choice: **(d)**
Solution:

Number of tigers in National park B and C together in 2018 = 52 + 32 = 84
Number of tigers in national park A and D together in 1998 = 64+80 = 144
Required difference = 144 - 80 = 60

62. Barchart given below shows number of tigers in different national parks ie, A to D of a country in two different years. Study the data carefully and answer the following questions
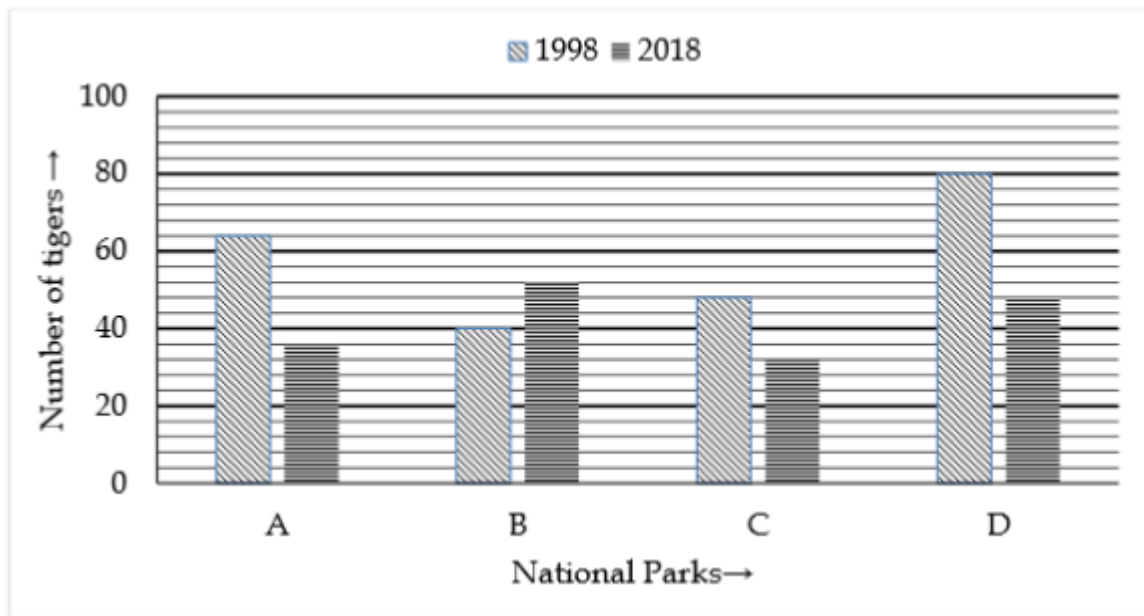
Number of tigers in national park D in both years together is what percent of the number of tigers in national park C in both years together?

(a) 60 %

(b) 160 %

(c) 140 %

(d) 120 %

(e) 180 %

Correct Choice: (b)
Solution:

Number of tigers in National park D in 1998 and 2018 together = 80+48 = 128
Number of tigers in National park C in 1998 and 2018 together = 48+32 = 80
Required % = $\frac{128}{80} \times 100 = 160$

63. Barchart given below shows number of tigers in different national parks ie, A to D of a country in two different years. Study the data carefully and answer the following questions
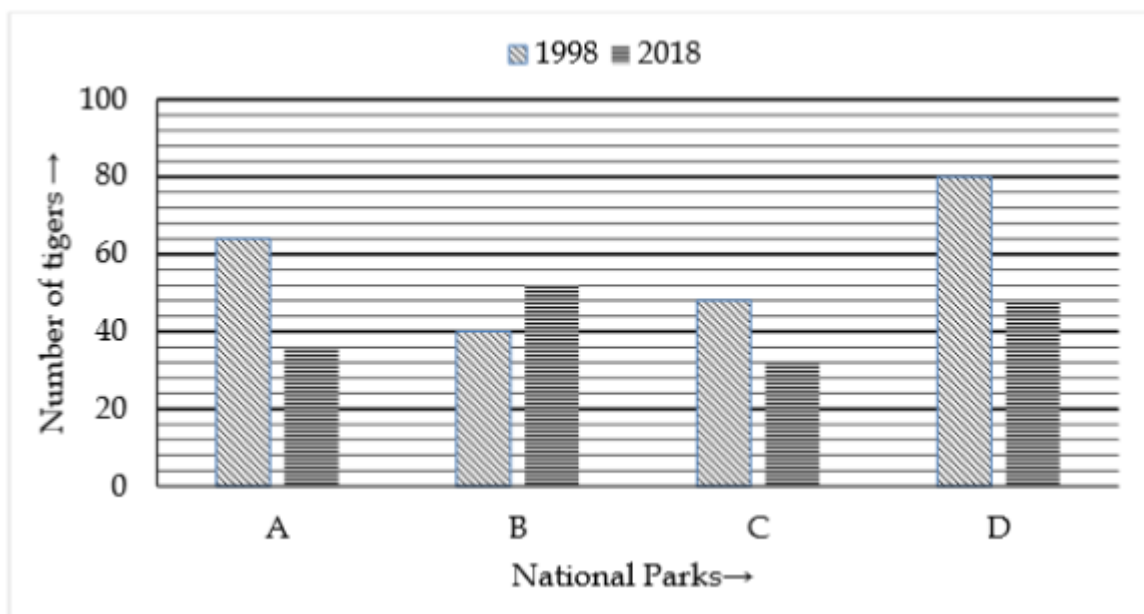
Find the ratio between number of tigers in national park A in 2018 to number of tigers in national park B in 1998?
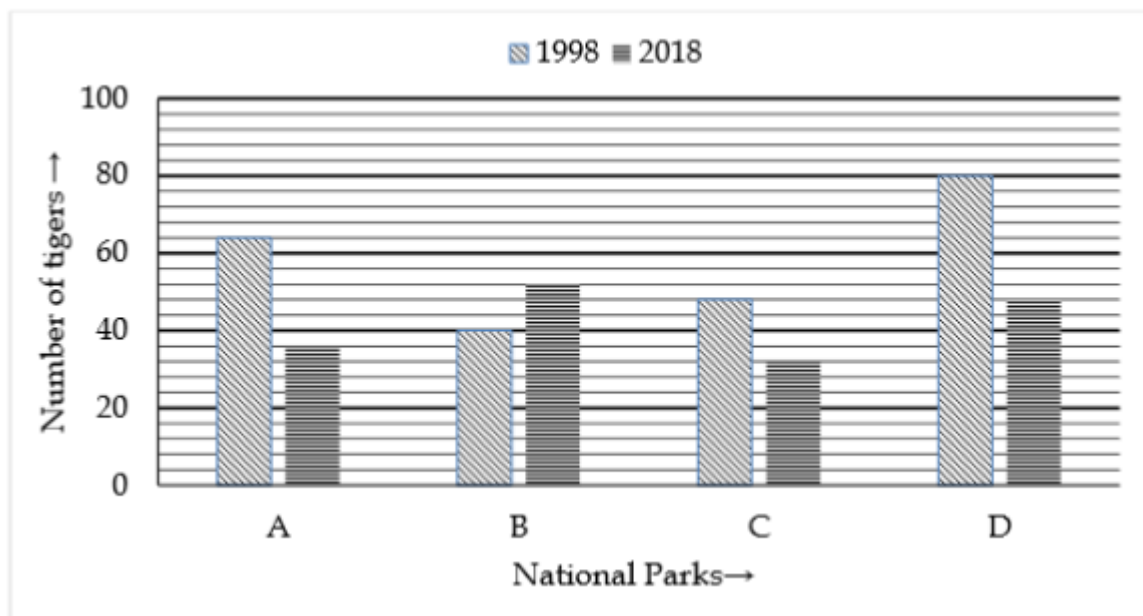
(a) 9:10

(b) 10:9

(c) 16:13

(d) 13:16

Correct Choice: (a)
Solution:

Required ratio = $\frac{36}{40} = \frac{9}{10}$

64. Barchart given below shows number of tigers in different national parks ie, A to D of a country in two different years. Study the data carefully and answer the following questions

Number of tigers in national park E in 2018 is 40 % more than number of tigers in national park D in 1998 while number of tigers in national park E in 1998 is 25% less than number of tigers in national park C in 2018. Find total number of tigers in national park E in 1998 and 2018 together?

(a) 148

(b) 84

(c) 172

(d) 160

(e) 136

Correct Choice: (e)
Solution:

Number of tigers in National park E in 2018 = $\frac{140}{1000} * 80 = 112$
Number of tigers in National park E in 1998 = $\frac{75}{100} \times 32 = 24$

Number of tigers in National park E in 1998 and 2018 together = 112+24 = 136

65. Barchart given below shows number of tigers in different national parks ie, A to D of a country in two different years. Study the data carefully and answer the following questions
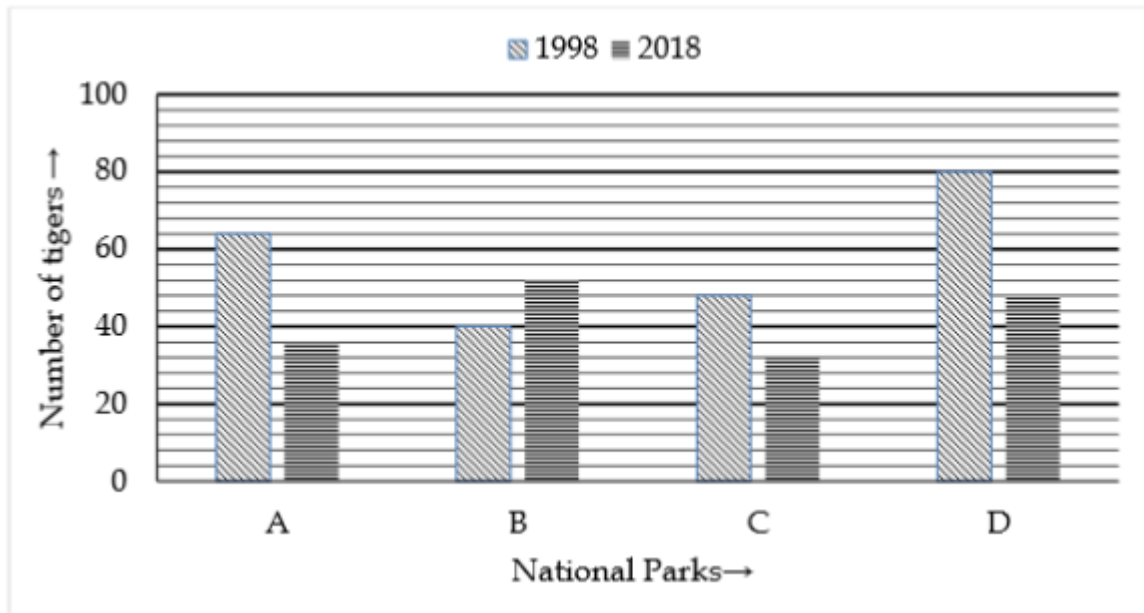
Average number of tigers in all national park in 2018 is how much less/more than average number of tigers in all national park in 1998?

(a) 14

(b) 16

(c) 18

(d) 20

(e) 22

Correct Choice: (**b**)

Solution:

Total number of tigers in 2018 = 36 + 52 + 32+ 48 = 168
Total number of tigers in 1998 = 64 + 40 + 48 + 80 = 232
Required difference = $\frac{232}{4} - \frac{168}{4} = \frac{64}{4} = 16$

66. The difference between downstream speed and upstream speed of boat is 6 km/hr and boat travels 72 km from P to Q (downstream) in 4 hours. Then find the speed of boat in still water?

(a) 15 km/hr

(b) 18 km/hr

(c) 20 km/hr

(d) 16 km/hr

(e) 24 km/hr

Correct Choice: (**a**)

Solution:

Let the speed of boat in still water be x km/hr and that of stream be y km/hr
ATQ,
(x+y) - (x-y) = 6
⇒ 2y = 6 ⇒ y = 3 km/hr
Downstream stream = (x + y) = $\frac{72}{4} = 18 km/hr$

⇒ x = 15 km/hr

67. In a vessel, there are two types of liquids A and B in the ratio of 5 : 9. 28 litres of the mixture is taken out and 2 litres of type B liquid is poured into it, the new ratio (A:B) thus formed is 1 : 2. Find the initial quantity of mixture in the vessel?

(a) 84 litres

(b) 42 litres

(c) 50 litres

(d) 56 litres

(e) 70 litres

Correct Choice: (**d**)

Solution:

Let the initial quantity of mixture in vessel be x litres
ATQ,

$$\frac{x \times \frac{5}{14} - 10}{x \times \frac{9}{14} - 18 + 2} = \frac{1}{2}$$

$$\frac{5x - 140}{9x - 224} = \frac{1}{2}$$

$$10x - 280 = 9x - 224$$

⇒ 56 litres

68. The average weight of 5 students in a class is 25.8 kg. When a new student joined them, the average weight is increased by 3.9 kg. Then find the approximate weight of the new student?

(a) 55 kg

(b) 49 kg

(c) 42 kg

(d) 44 kg

(e) 58 kg

Correct Choice: (b)
Solution:

Weight of new student = $6(25.8 + 3.9) - 5 \times 25.8 = 49$ kg

69. A person has purchased two adjacent plots. One is in rectangular shape and other is in square shape and combined them to make a single New plot. The breadth of the rectangular plot is equal to the side of the square plot and the cost of fencing the new plot is Rs. 390 (Rs. 5/m). Find the side of square if the length of the rectangular plot is 15m.

(a) 10 m

(b) 8 m

(c) 12 m

(d) 9 m

(e) 6 m

Correct Choice: (c)
Solution:
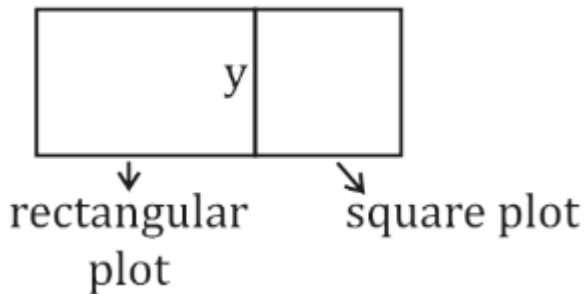
Let the breadth of rectangular plot be y m and length = 15 m
ATQ,
30 + y + 3y = 390/5
⇒ 30 + 4y = 78
⇒ 4y = 48 ⇒ y = 12 m

70. A shopkeeper marked his article 50% above the cost price and gives a discount of 20% on it. If he had marked his article 75% above the cost price, and gives a discount of 20% on it. Then find the earlier profit is what percent of the profit earned latter?

(a) 50 %

(b) 60 %

(c) 33 ½ %

(d) 40 %

(e) 75 %

Correct Choice: (a)
Solution:

Let the CP be Rs. 100x
Then MP = Rs. 150x
SP = $150x * \frac{80}{100} = Rs. 120x$
Profits = Rs. 20x
New MP = rs. 175x
New SP = $175x * \frac{80}{100} = Rs. 140x$
New profit = Rs. 40x
required % = $\frac{20x}{40x} * 100 = 50$ %

71. A person invested two equal amounts in two different schemes. In the first scheme, amount is invested @ 8% p.a. on SI for T years and SI received is Rs. 2000 while in second scheme, amount is invested @ 20% p.a. for 2 years at CI and the compound interest received is Rs. 1050. Find the value of T.

(a) 4 yr

(b) 8 yr

(c) 6 yr

(d) 5 yr

(e) 3 yr

Correct Choice: (d)
Solution:

Let the amount be Rs.x

CI @ 10 % in 2 years = 10 + 10 + $\frac{10*10}{100}$ = 21 %

ATQ, $\frac{x*21}{100} = 1050 \rightarrow x = Rs.\,5000$

And,
$\frac{5000*8*T}{100} = 2000 \rightarrow T = 5 years$

72. Satish saves 20% of his monthly salary and of the remaining salary $\frac{1}{4}$ th and $\frac{1}{2}$ th he gives to his mother and sister respectively and the remaining salary he submits as his EMI for the payment of his car. If his annual EMI was Rs. 60000, then find his monthly salary.

(a) Rs. 40000

(b) Rs. 35000

(c) Rs. 32000

(d) Rs. 30000

(e) Rs. 25000

Correct Choice: (e)
Solution:

Let the monthly salary be Rs. 100x ,

EMI per month = $100x - (20x + 80x \times \frac{1}{4} + 80x \times \frac{1}{2}) = Rs.\,20x$

ATQ,
$20x \times 12 = 60000 \Rightarrow x = 250$
Monthly salary = Rs. 25000

73. The sum of four times of an amount of X and (x– 9.75) is Rs.442. Find the approximate value of X?

(a) Rs. 85

(b) Rs. 90

(c) Rs. 100

(d) Rs. 1100

(e) Rs. 75

Correct Choice: (b)
Solution:

ATQ,
4x + x - 9.75 = 442
5x = 451.75
x = Rs. 90

74. A and B entered into a partnership by investing some amounts. The investment of A is twice of the investment of B. Another person C joined them after 4 months. At the end of the year, the profit share of A and C is equal. Then find the profit share of B is what percent of the profit share of C.

(a) 50 %

(b) $33\frac{1}{3}$%

(c) 40 %

(d) 60 %

(e) 75 %

Correct Choice: (a)
Solution:

Let the investment of B be Rs. x
∴ Investment of A = Rs. 2x Ratio of profit ,
A ⇒ $12 \times 12x$
B ⇒ $12 \times x$
C ⇒ $8 \times y$,
ATQ
$24x = 8y$
$y = 3x$
∴ Required percentage = $\frac{12 \times x}{8 \times 3x} \times 100 = 50$ %

75. The ratio of age of Ishu 8 years hence and that of Ahana 6 years hence is 5:6. The age of Ishu 10 years hence is equal to the age of Ahana 6 years hence. Then find the present age of Ishu.

(a) 1.5 yr

(b) 2 yr

(c) 3 yr

(d) 4 yr

(e) 5 yr

Correct Choice: (**b**)

Solution:

Let the present age of Ishu & Ahana be x year and y year respectively.

∴ATQ,

$\frac{x+8}{y+6} = \frac{5}{6}$

6x + 48 = 5y + 30

6x - 5y = -18 …….. (1)

x + 10 = y + 6

x - y = -4 ……. (2)

∴ x = 2 years

∴ Present age of Ishu is 2 years

76. What is the difference between 20% of p and 20% of (p+5000).

(a) 1500

(b) 1200

(c) 1000

(d) 2000

(e) 1600

Correct Choice: (**c**)

Solution:

Required difference = $\frac{20}{100}(P+5000) - \frac{20}{100} \times P = 1000$

77. The ratio of the diameter of base and height of a cylinder is 2:3. Find the radius of the cylinder if the approximate volume of cylinder is 3234.01 cm^3

(a) $\frac{12}{2}$ cm

(b) $\frac{7}{2}$ cm

(c) 21 cm

(d) 7 cm

(e) 14 cm

Correct Choice: (**d**)

Solution:

Let diameter be 2x cm and height of cylinder be 3x cm

∴ $radius = \frac{2x}{2} = x\, cm$

We know, Volume of cylinder = $\pi r^2 h$

ATQ,

$\pi r^2 h = 3234$

$\frac{22}{7} \times x^2 \times 3x = 3234$

x = 7 cm

radius = 7 cm

78. A train of some length passes the platform of length 524m in 55 seconds. Find the length of train if the speed of train is 72 km/hr.

(a) 476 m

(b) None of these

(c) 428 m

(d) 526 m

(e) 576 m

Correct Choice: (**e**)

Solution:

Speed of train in m/s = $72 \times \frac{5}{18}$ = 20 m/s

Let length of train be x m

ATQ

$\frac{524+x}{55} = 20$

x = 1100 − 524 = 576 m

79. Efficiency of B is two times more than efficiency of A. Both started working alternatively, starting with B and completed the work in total 37 days. If C alone complete the same work in 50 days then find in how many days A and C together will complete the work

(a) 24 days

(b) 30 days

(c) 36 days

(d) 48 days

(e) 18 days

Correct Choice: (**b**)
Solution:

Lets efficiency of A is x unit / day and B's efficiency is 3x unit / day
So, B work for 19 days and a work for 18 days
ATQ,
Total Work = 19 *3x* + *18* x = 75 x
Efficiency of C = $\frac{75x}{50}$ = 1.5 x unit per day
(A + C) together = $\frac{75x}{x+1.5x}$ = 30 days

80. 7 men and 6 women together can complete a piece of work in 8 days and work done by a women in one day is half the work done by a man in one day. If 8 men and 4 women started working and after 3 days 4 men left the work and 4 new women joined then, in how many more days will the work be completed?

(a) 7 days

(b) 6 days

(c) 5.25 days

(d) 6.25 days

(e) 8.14 days

Correct Choice: (**d**)
Solution:

One day work of women = half of work done by men in one day
Let efficiency of one women = w unit/ day
Man's efficiency = 2w unit / day
Total work = (7 *2w + 6* w) *8 = 160 w unit*
8 men and 4 women start work for 3 days
Total work done = (8 2w + 4 *w)* 3 = 60w
4 women replace 4 man = (4 *2w + 8* w) = 16 w
days required = $\frac{100w}{16w} = 6.25$ days