



Explore | Expand | Enrich

VENN DIAGRAMS



POINTS TO REMEMBER

- Venn Diagrams as an alternate way of depicting sets. Venn Diagrams consist of closed shapes, generally circles, which represent sets. The capital letter outside the circle denotes the name of the set while the letters inside the circle denote the elements of the set.
- The various operations of sets are represented by partial or complete overlap of these closed figures. Regions of overlap represent elements that are shared by sets.
- In practice, sets are generally represented by circles. The universal set is represented by a rectangle that encloses all other sets.



VENN DIAGRAMS

The below figure is a representation of a Venn diagram. Here each of the circles A , B and C represents a set of elements.

Set A has the elements a , d , e and g .

Set B has the elements b , d , g and f .

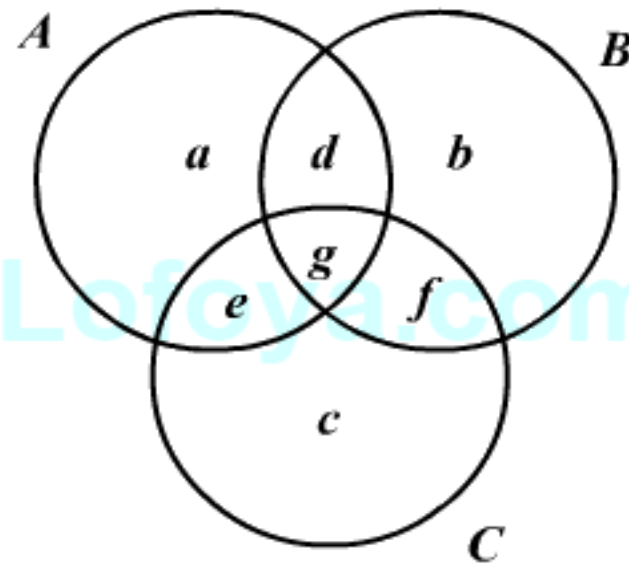
Set C has the elements e , g , f and c .

Both A and B have the elements d and g .

Both B and C have the elements g and f .

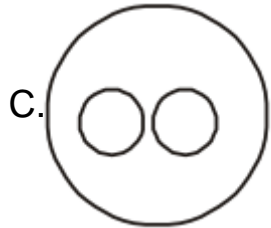
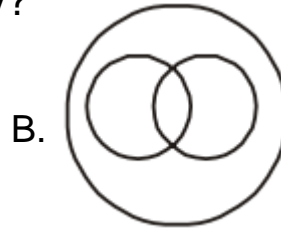
Both C and A have the elements e and g .

A , B and C all have the element g .



PROBLEM 1:

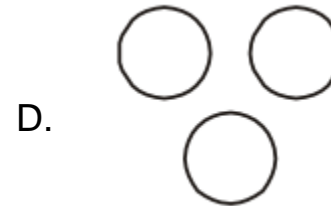
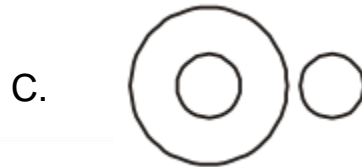
Which one of the following diagrams best depicts the relationship among **pen**, **pencils**, **stationery**?



PROBLEM 2:

Identify the diagram that best represents the relationship among the classes given below:

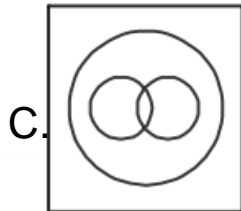
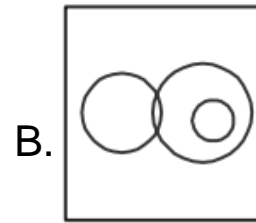
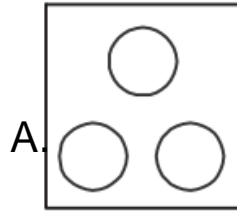
Doctors, Engineers, Lawyers



ANS:

PROBLEM 3:

Select the Venn diagram that correctly shows the relationship. **Continent** , **City** and **Country**



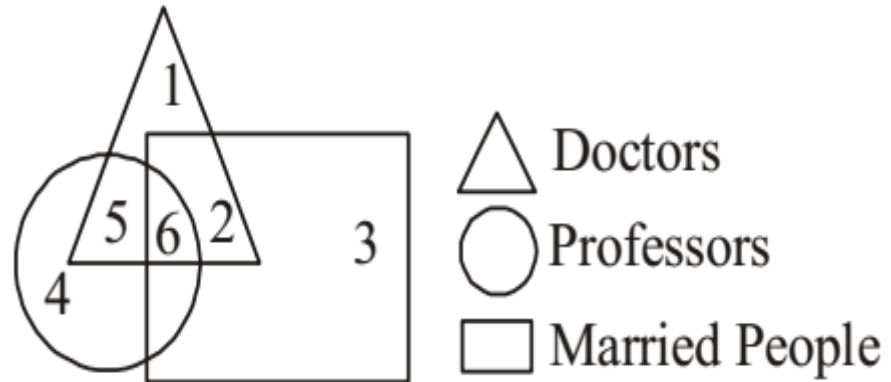
ANS:D

PROBLEM 4:

Which number indicates doctors who are not married?

- A. 6
- B. 4
- C. 2
- D. 1

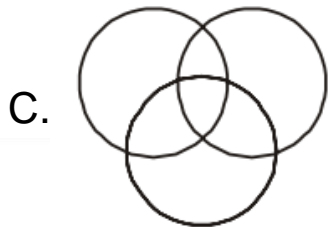
ANS:D



PROBLEM 5:

Which figure will best represent the relationship amongst the three classes?

Boys, Sportsperson, Students



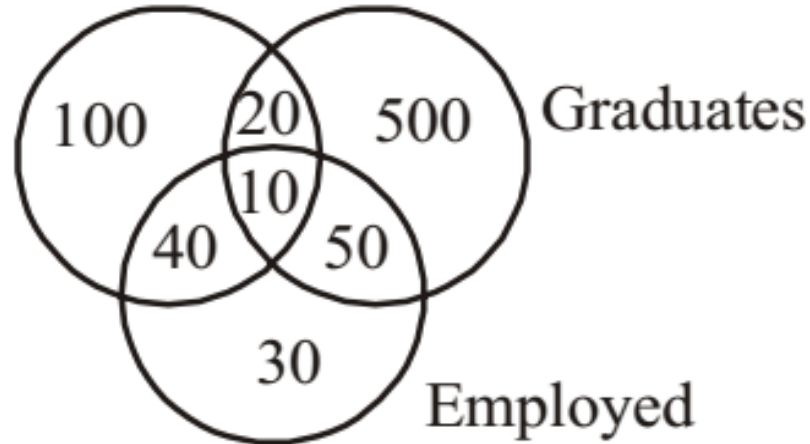
ANS:C

PROBLEM 6:

If the number indicates the number of persons, then how many youth are only graduates are there?

- A. 20
- B. 30
- C. 40
- D. 50

ANS:A

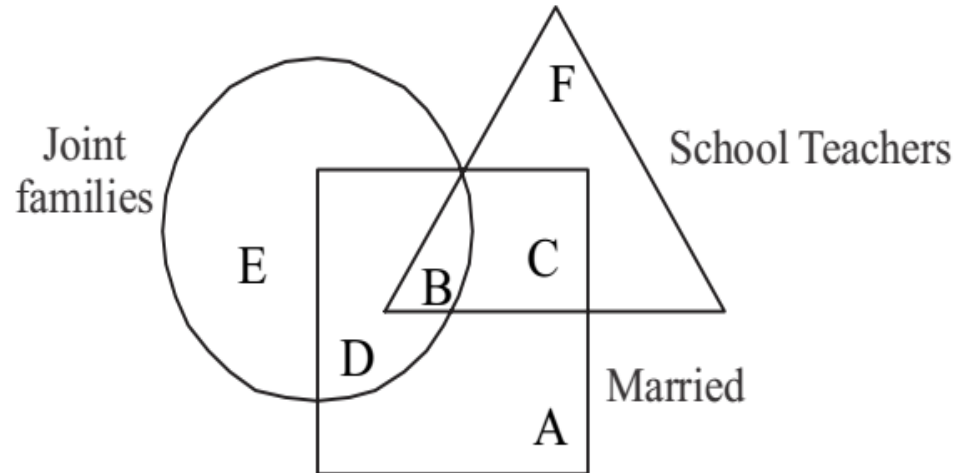


PROBLEM 7:

Triangle represents school teachers. **Square** represents **married persons**. **Circles** **represents** persons living in **joint families**. **Married persons** living in **joint families** but not working as school teachers are represented by

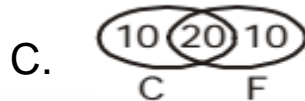
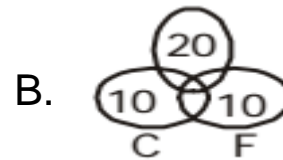
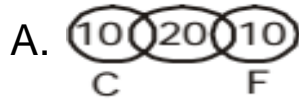
- A. D
- B. F
- C. A
- D. C

ANS:A



PROBLEM 9:

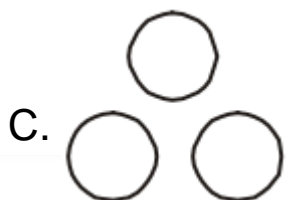
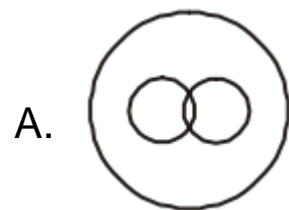
In a group of 40 players, some play cricket, some play foot-ball and some both. If 30 play cricket and 20 both, the correct way of representing above by Venn Diagram is



ANS:

PROBLEM 10:

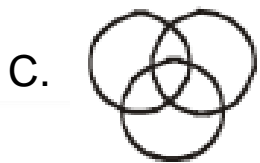
Which one of the following Venn diagrams represents the best relationship between **Snake**, **Lizard**, **Reptiles**?



ANS:

PROBLEM 11:

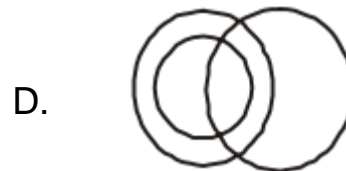
Select from the given diagram the one that illustrates the relationship among the given 3 classes: **children below 18**, **persons in the electoral list**, those who have **voted**.



ANS:

PROBLEM 12:

Which diagram represents the relationship between **Women**, **Mothers** and **Engineers**?



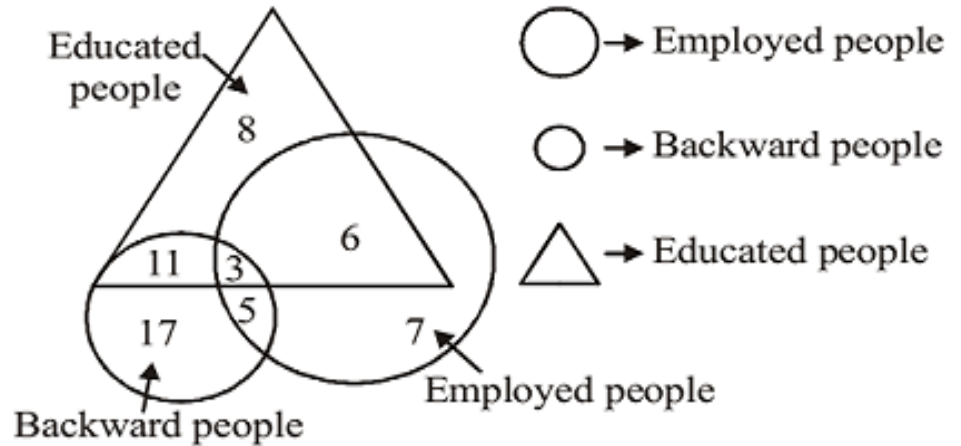
ANS:

PROBLEM 13:

In the following figure, how many **educated people** are **employed**?

- A. 18
- B. 20
- C. 15
- D. 9

ANS:D

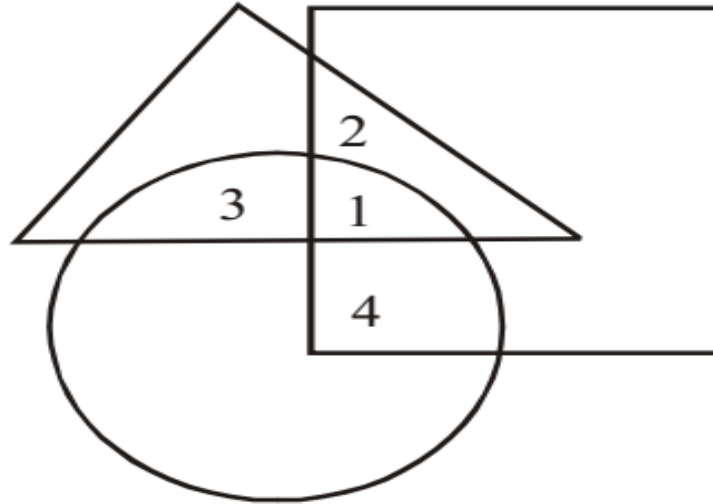


PROBLEM 14:

In the given diagram, Circle represents strong men, Square represents short men and Triangle represents military officers. Which region represents military officers who are short but not strong?

- A. 2
- B. 3
- C. 4
- D. 1

ANS:A

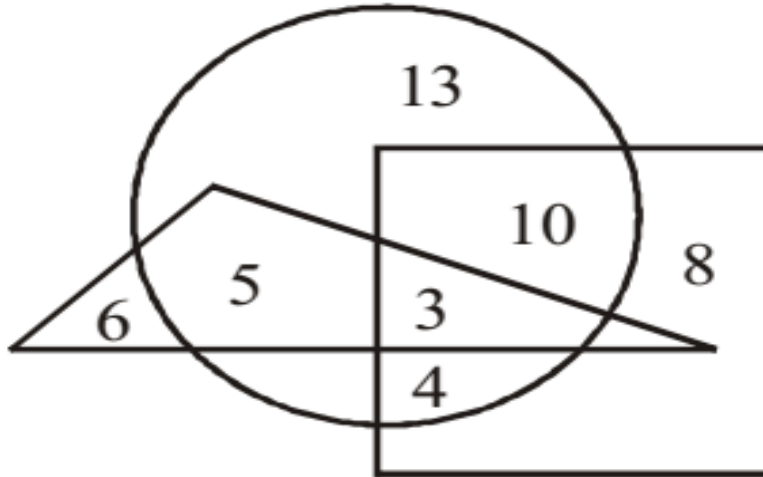


PROBLEM 15:

In the above diagram, **parallelogram** represents **women**, **triangle** represent the **sub-inspectors of police** and **circle** represents the **graduates**. Which numbered area represents **women graduate sub-inspectors of police**?

- A. 5
- B. 3
- C. 8
- D. 13

ANS:B

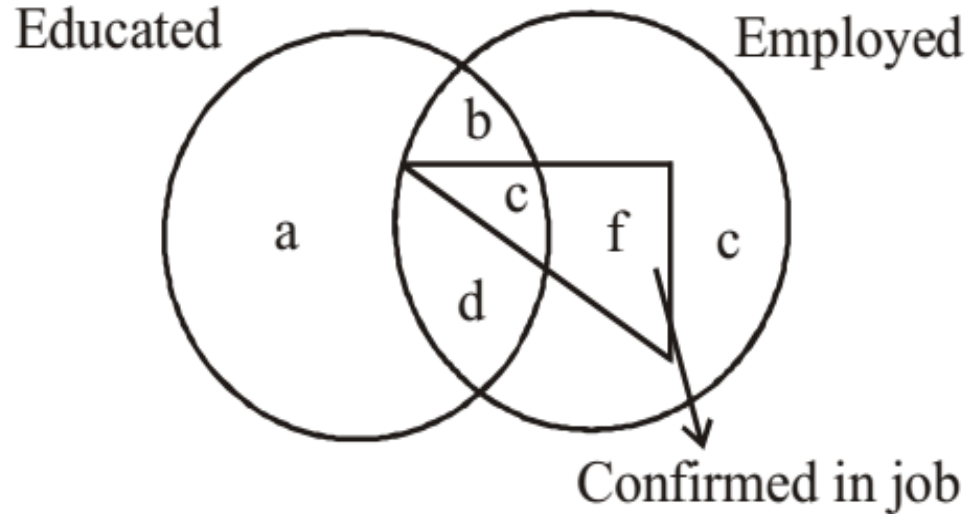


PROBLEM 16:

Read the figure and find the region representing persons who are **educated** and **employed** but not confirmed.

- A. abc
- B. bd
- C. adc
- D. ac

ANS:B

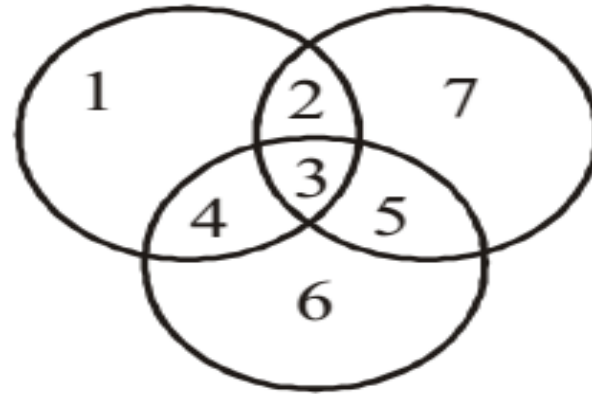


PROBLEM 17:

In the given figure, **circles** represent students studying **3** different subjects. How many students study all the **3** subjects?

- A. 2
- B. 3
- C. 4
- D. 1

ANS:B



PROBLEM 18:

Which diagram represents the relationship between **Women**, **Mothers** and **Engineers**?



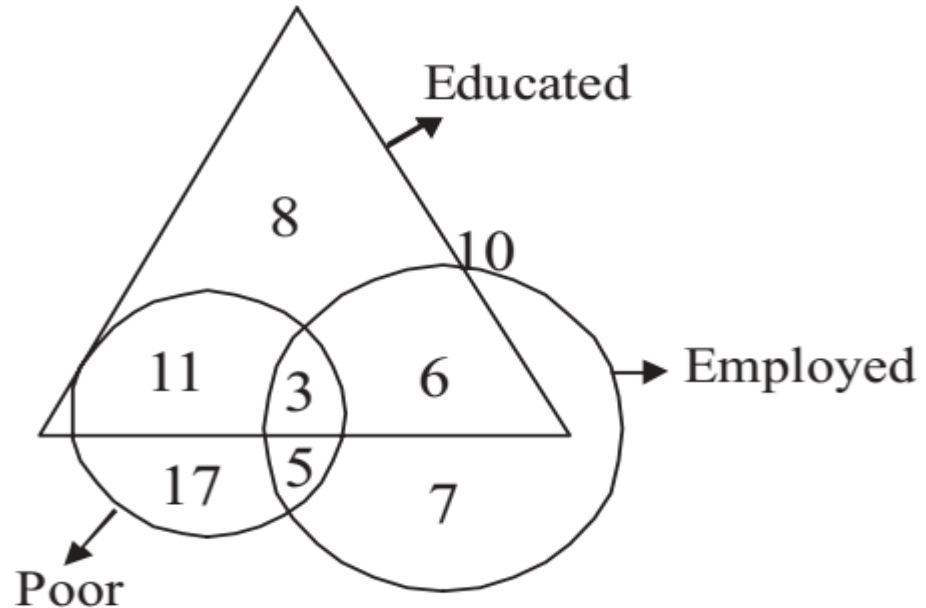
ANS:D

PROBLEM 19:

The figure represents three classes of youth in a village. How many educated youth are poor?

- A. 14
- B. 9
- C. 6
- D. 19

ANS:A



PROBLEM 20:

In the following figure, the boys who are cricketer and sober are indicated by which number?

- A. 6
- B. 5
- C. 4
- D. 2

ANS:D

