

Name : Word Problems on Sets

Chapter : Venn Diagrams

Grade: ICSE Grade VIII

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1	In a class of 17 students, each one likes either 'carroms' or 'volleyball' or both. If 13 students like 'carroms' a	and 6
1.	students like 'volleyball', how many like both the games?	

(i) 3 (ii) 2 (iii) 1 (iv) 4 (v) 0

In a class of 22 students, each one likes either 'table tennis' or 'wrestling' or both. If 18 students like 'table tennis' and 12 students like 'wrestling', how many like 'table tennis' only?

(i) 10 (ii) 13 (iii) 11 (iv) 7 (v) 9

In a class of 16 students, each one likes either 'hockey' or 'wrestling' or both. If 5 students like 'hockey' and 14 students like 'wrestling', how many like 'wrestling' only?

(i) 12 (ii) 14 (iii) 10 (iv) 9 (v) 11

In a class of 29 students, each one likes either 'Community work' or 'Watching TV' or both. If 25 students like 4. 'Community work' and 16 students like 'Watching TV', how many like both the activities?

(i) 14 (ii) 12 (iii) 11 (iv) 10 (v) 13

In a class of 23 students, each one likes either 'Listening music' or 'Community work' or both. If 14 students like 'Listening music' and 18 students like 'Community work', how many like 'Listening music' only?

(i) 7 (ii) 6 (iii) 4 (iv) 5 (v) 3

In a class of 21 students, each one likes either 'Watching TV' or 'Community work' or both. If 15 students like 6. 'Watching TV' and 12 students like 'Community work', how many like 'Community work' only?

(i) 8 (ii) 7 (iii) 6 (iv) 5 (v) 4

In a class of 19 students, each one studies either 'German' or 'Science' or both. If 18 students study 'German' and 7 students study 'Science', how many study both the subjects?

(i) 9 (ii) 5 (iii) 6 (iv) 3 (v) 7

In a class of 20 students, each one studies either 'Science' or 'Social Studies' or both. If 13 students study 'Science' and 15 students study 'Social Studies', how many study 'Science' only?

(i) 5 (ii) 7 (iii) 2 (iv) 6 (v) 4

In a class of 34 students, each one studies either 'Mathematics' or 'English' or both. If 20 students study 'Mathematics' and 32 students study 'English', how many study 'English' only?

(i) 15 (ii) 12 (iii) 14 (iv) 17 (v) 13

In a class of 14 students, each one prefers either 'By Foot' or 'Scooter' or both. If 7 students prefer 'By Foot' and 13 students prefer 'Scooter', how many prefer both the modes of transport?

(i) 9 (ii) 5 (iii) 6 (iv) 4 (v) 7

In a class of 26 students, each one prefers either 'School Van' or 'RTC Bus' or both. If 24 students prefer 'School Van' and 22 students prefer 'RTC Bus', how many prefer 'School Van' only?

(i) 4 (ii) 6 (iii) 5 (iv) 2 (v) 3

12.	In a class of 11 students, each one prefers either 'Moped' or 'RTC Bus' or both. If 7 students prefer 'Moped' and 5 students prefer 'RTC Bus', how many prefer 'RTC Bus' only? (i) 5 (ii) 6 (iii) 4 (iv) 3 (v) 1
13.	In a class of 26 students, each one reads either 'Indian Express' or 'Hindustan Times' or both. If 16 students read 'Indian Express' and 17 students read 'Hindustan Times', how many read both the news papers? (i) 5 (ii) 8 (iii) 7 (iv) 6 (v) 10
14.	In a class of 20 students, each one reads either 'Deccan Chronicle' or 'Indian Express' or both. If 19 students read 'Deccan Chronicle' and 9 students read 'Indian Express', how many read 'Deccan Chronicle' only? (i) 14 (ii) 10 (iii) 8 (iv) 12 (v) 11
15.	In a class of 18 students, each one reads either 'The Hindu' or 'Indian Express' or both. If 16 students read 'The Hindu' and 5 students read 'Indian Express', how many read 'Indian Express' only? (i) 4 (ii) 3 (iii) 2 (iv) 0 (v) 1
16.	In a class of 25 students, if 19 students like 'shotput', 24 students like 'boxing' and 18 students like both the games, how many do not like any of the games ? (i) (-2) (ii) 1 (iii) 2 (iv) 0 (v) (-1)
17.	In a class of 27 students, if 20 students like 'football', 7 students like 'tennis' and 4 students like both the games, how many like 'football' only ? (i) 15 (ii) 18 (iii) 16 (iv) 13 (v) 17
18.	In a class of 25 students, if 9 students like 'running', 5 students like 'boxing' and 2 students like both the games, how many like 'boxing' only ? (i) 6 (ii) 3 (iii) 4 (iv) 0 (v) 2
19.	In a class of 26 students, 15 students in 'German', 16 students in 'Mathematics', 15 students in 'Urdu', 8 students in 'German' and 'Mathematics', 7 students in 'Mathematics' and 'Urdu', 7 students in 'Urdu' and 'German', 2 students in all the three subjects could get first class marks. How many of them got first class marks in only 'German'? (i) 2 (ii) (-1) (iii) 3 (iv) 1 (v) 4
20.	In a class of 31 students, 22 students in 'Science', 7 students in 'Sanskrit', 25 students in 'German', 6 students in 'Science' and 'Sanskrit', 5 students in 'Sanskrit' and 'German', 19 students in 'German' and 'Science', 5 students in all the three subjects could get first class marks. How many of them got first class marks in only 'Sanskrit'? (i) 3 (ii) (-1) (iii) 1 (iv) 2 (v) 0
21.	class marks in only 'Social Studies'?
	(i) 9 (ii) 8 (iii) 11 (iv) 7 (v) 6
	In a class of 34 students, 14 students in 'Social Studies', 20 students in 'Spanish', 29 students in 'Mathematics', 8

students in 'Social Studies' and 'Spanish', 16 students in 'Spanish' and 'Mathematics', 12 students in 'Mathematics' and 'Social Studies', 6 students in all the three subjects could get first class marks. How many of

them got first class marks in exactly two subjects?

(i) 20 (ii) 18 (iii) 19 (iv) 15 (v) 17

23.	In a class of 31 students, 18 students in 'English', 22 students in 'Science', 16 students in 'Sanskrit', 12 students in 'English' and 'Science', 12 students in 'Science' and 'Sanskrit', 8 students in 'Sanskrit' and 'English', 5 students in all the three subjects could get first class marks. How many of them got first class marks in more than one subject? (i) 24 (ii) 19 (iii) 23 (iv) 21 (v) 22
24.	In a class of 25 students, 17 students in 'Telugu', 16 students in 'Hindi', 19 students in 'Science', 10 students in 'Telugu' and 'Hindi', 11 students in 'Hindi' and 'Science', 11 students in 'Science' and 'Telugu', 5 students in all the three subjects could get first class marks. How many of them got first class marks in none? (i) 1 (ii) (-1) (iii) 2 (iv) 0 (v) (-3)
25.	In a class of 25 students, 8 students like 'basketball', 10 students like 'long jump', 19 students like 'wrestling', 2 students like 'basketball' and 'long jump', 7 students like 'long jump' and 'wrestling', 5 students like 'wrestling' and 'basketball', 1 students like all the three games. How many of them like only 'basketball'? (i) (-1) (ii) 2 (iii) 3 (iv) 4 (v) 1
26.	In a class of 32 students, 15 students like 'high jump', 18 students like 'table tennis', 14 students like 'wrestling', 7 students like 'high jump' and 'table tennis', 6 students like 'table tennis' and 'wrestling', 8 students like 'wrestling' and 'high jump', 2 students like all the three games. How many of them like only 'table tennis'? (i) 5 (ii) 6 (iii) 8 (iv) 7 (v) 10
27.	In a class of 29 students, 22 students like 'Painting', 13 students like 'Watching TV', 13 students like 'Listening music', 11 students like 'Painting' and 'Watching TV', 7 students like 'Watching TV' and 'Listening music', 10 students like 'Listening music' and 'Painting', 5 students like all the three activities. How many of them like only 'Painting'?

(i) 6 (ii) 9 (iii) 7 (iv) 5 (v) 3

In a class of 28 students, 9 students like 'Painting', 18 students like 'Reading books', 12 students like 'Singing', 7 28. students like 'Painting' and 'Reading books', 7 students like 'Reading books' and 'Singing', 2 students like 'Singing' and 'Painting', 1 students like all the three activities. How many of them like only 'Reading books'?

(i) 7 (ii) 3 (iii) 6 (iv) 4 (v) 5

In a class of 26 students, 7 students prefer 'Bicycle', 17 students prefer 'Moped', 12 students prefer 'Car', 5
29. students prefer 'Bicycle' and 'Moped', 9 students prefer 'Moped' and 'Car', 4 students prefer 'Car' and 'Bicycle', 3 students prefer all the three modes of transport. How many of them prefer only 'Car'?

(i) (-1) (ii) 3 (iii) 2 (iv) 5 (v) 1

In a class of 30 students, 11 students prefer 'Auto', 20 students prefer 'Bicycle', 18 students prefer 'Car', 7

30. students prefer 'Auto' and 'Bicycle', 12 students prefer 'Bicycle' and 'Car', 6 students prefer 'Car' and 'Auto', 5 students prefer all the three modes of transport. How many of them prefer exactly two modes of transport?

(i) 10 (ii) 9 (iii) 11 (iv) 8 (v) 13

In a class of 34 students, 23 students read 'Hans India', 27 students read 'News Today', 27 students read 'Times of India', 18 students read 'Hans India' and 'News Today', 20 students read 'News Today' and 'Times of India', 18 students read 'Times of India' and 'Hans India', 13 students read all the three news papers. How many of them read more than one news paper?

(i) 33 (ii) 31 (iii) 28 (iv) 29 (v) 30

In a class of 25 students, 6 students read 'Indian Express', 15 students read 'Deccan Chronicle', 17 students read 'News Today', 4 students read 'Indian Express' and 'Deccan Chronicle', 11 students read 'Deccan Chronicle' and 'News Today', 5 students read 'News Today' and 'Indian Express', 4 students read all the three news papers. How many of them read none?

(i) 2 (ii) 6 (iii) 3 (iv) 1 (v) 4

	Assignment Key								
1) (ii)	2) (i)	3) (v)	4) (ii)	5) (iv)	6) (iii)				
7) (iii)	8) (i)	9) (iii)	10) (iii)	11) (i)	12) (iii)				
13) (iii)	14) (v)	15) (iii)	16) (iv)	17) (iii)	18) (ii)				
19) (i)	20) (iii)	21) (ii)	22) (ii)	23) (v)	24) (iv)				
25) (ii)	26) (iv)	27) (i)	28) (v)	29) (iii)	30) (i)				
31) (v)	32) (iii)								

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