Set Problems for SAT

1. Workers are grouped by their areas of expertise, and are placed on at least one team. 20 are on the marketing team, 30 are on the Sales team, and 40 are on the Vision team. 5 workers are on both the Marketing and Sales teams, 6 workers are on both the Sales and Vision teams, 9 workers are on both the Marketing and Vision teams, and 4 workers are on all three teams. How many workers are there in total?

A) 68 B) 74 C) 82 D) 96 E) 105

2. Each of the 59 members in a high school class is required to sign up for a minimum of one and a maximum of three academic clubs. The three clubs to choose from are the poetry club, the history club, and the writing club. A total of 22 students sign up for the poetry club, 27 students for the history club, and 28 students for the writing club. If 6 students sign up for exactly two clubs, how many students sign up for all three clubs?

A) 6 B) 7 C) 8 D) 9 E) 10

3. Of 20 Adults, 5 belong to A, 7 belong to B, and 9 belong to C. If 2 belong to all three organizations and 3 belong to exactly 2 organizations, how many belong to none of these organizations?

A) 4 B) 5 C) 6 D) 7 E) 8

4. This semester, each of the 90 students in a certain class took at least one course from A, B, and C. If 60 students took A, 40 students took B, 20 students took C, and 5 students took all the three, how many students took exactly two courses?

A) 15 B) 17 C) 20 D) 22 E) 25

5. In the city of San Durango, 60 people own cats, dogs, or rabbits. If 30 people owned cats, 40 owned dogs, 10 owned rabbits, and 12 owned exactly two of the three types of pet, how many people owned all three?

A) 8 B) 7 C) 6 D) 5 E) 4

6. When Professor Wang looked at the rosters for this term's classes, she saw that the roster for her economics class (E) had 26 names, the roster for her marketing class (M) had 28, and the roster for her statistics class (S) had 18. When she compared the rosters, she saw that E and M had 9 names in common, E and S had 7, and M and S had 10. She also saw that 4 names were on all 3 rosters. If the rosters for Professor Wang's 3 classes are combined with no student's name listed more than once, how many names will be on the combined roster?

A) 42 B) 46 C) 48 D) 50 E) 52

7. There are 50 employees in the office of ABC Company. Of these, 22 have taken an accounting course, 15 have taken a course in finance and 14 have taken a marketing course. Nine of the employees have taken exactly two of the courses and 1 employee has taken all three of the courses. How many of the 50 employees have taken none of the courses?

A) 8 B) 9 C) 10 D) 11 E) 12

8. In a consumer survey, 85% of those surveyed liked at least one of three products: 1, 2, and 3. 50% of those asked liked product 1, 30% liked product 2, and 20% liked product 3. If 5% of the people in the survey liked all three of the products, what percentage of the survey participants liked more than one of the three products?

A) 5 B) 10 C) 15 D) 20 E) 25

9. In a class of 50 students, 20 play Hockey, 15 play Cricket and 11 play Football. 7 play both Hockey and Cricket, 4 play Cricket and Football and 5 play Hockey and football. If 18 students do not play any of these given sports, how many students play exactly two of these sports?

A) 10 B) 11 C) 12 D) 13 E) 14

10. Three people each took 5 tests. If the ranges of their scores in the 5 practice tests were 17, 28 and 35, what is the minimum possible range in scores of the three test-takers?

A) 17 B) 28 C) 35 D) 45 E) 80

Answers: 1. B 2.A 3.C 4.C 5.E 6.D 7.C 8.B 9.A 10.C

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