

GMAT Prep

Venn and Equations



Venn and Equations

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1. Twice the larger of the two numbers is three more than five times the smaller and the sum of four times the larger and three times the smaller is 71. What is the larger number?
- A. 11
 - B. 12
 - C. 13
 - D. 14
 - E. 21



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2. Three times the first of three consecutive odd integers is 3 more than twice the third. The third integer is?
- A. 11
 - B. 13
 - C. 15
 - D. 17
 - E. 19



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3. A club collected exactly \$ 599 from its members. If each member contributed at least \$12, what is the greatest number of members the club could have?
- A. 43
 - B. 44
 - C. 49
 - D. 50
 - E. 51



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4. If every donor to a charity drive contributed at least \$14 and \$237 was collected, what is the maximum number of donors?
- A. 13
 - B. 14
 - C. 15
 - D. 16
 - E. 17



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5. Jack is now 14 years older than Bill. If in 10 years Jack will be twice as old as Bill, how old will Jack be in 5 years?
- A. 9
 - B. 19
 - C. 21
 - D. 23
 - E. 33



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6. A certain grocery purchased x pounds of produce for p dollars per pound. If y pounds of the produce had to be discarded due to spoilage and the grocery sold the rest for s dollars per pound, which of the following represents the gross profit on the sale of the produce?
- A. $(x - y)s - xp$
 - B. $(x - y)p - ys$
 - C. $(s - p)y - xp$
 - D. $xp - ys$
 - E. $(x - y)(s - p)$



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7. Lois has x dollars more than Jim has, and together they have a total of y dollars. Which of the following represents the number of dollars that Jim has?

A. $\frac{y-x}{2}$

B. $y - \frac{x}{2}$

C. $\frac{y}{2} - x$

D. $2y - x$

E. $y - 2x$



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8. In an English examination 60% failed in English Literature and 52% failed in English Language. 35% of the candidates failed in both subjects. If a total of 77 candidates failed in one or more subjects then what is the total number of candidates taking the examination?
- A. 70
 - B. 80
 - C. 85
 - D. 90
 - E. 100



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9. In an examination 35% of the candidates failed in both the subjects. If a total of 65 candidates passed one or more subjects, then what is the total number of candidates taking the examination?
- A. 70
 - B. 80
 - C. 85
 - D. 90
 - E. 100



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10. In an English examination, 70% passed in Literature and 60% passed in English Language, 15% of the candidates failed in both subjects. If a total of 77 candidates failed in one or more subjects, then what is the number of candidates taking the examination?
- A. 100
 - B. 130
 - C. 140
 - D. 145
 - E. 150



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11. In a certain class, $\frac{5}{12}$ of all the students are girls and $\frac{1}{4}$ of all the students are girls who took Spanish. What fraction of the girls took Spanish?

- A. $\frac{5}{48}$
- B. $\frac{5}{12}$
- C. $\frac{2}{5}$
- D. $\frac{3}{5}$
- E. $\frac{7}{12}$



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12. Dwayne planted 70 acres with two types of beans: navy and pinto. Each acre of navy beans yielded 27 bushels and each acre of pinto beans yielded 36 bushels. If Dwayne grew twice as many bushels of pinto beans as navy beans, how many acres of pinto beans did he plant?
- A. 28
 - B. 30
 - C. 35
 - D. 40
 - E. 42



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13. Two trees have a combined height of 60 feet, and the taller tree is x times the height of the shorter tree. How tall is the shorter tree, in terms of x ?
- A. $60/(1+x)$
 - B. $60/x$
 - C. $30/x$
 - D. $60-2x$
 - E. $30-5x$



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14. If $2x^2 - bx + 36 = 7x$ has one root equal to 3, what is the value of the other root?
- A. 4
 - B. 6
 - C. 7
 - D. 14
 - E. 25



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15. A certain number of candies is distributed equally among Alice, Ben, Cane, and Dino. Alice further distributes $\frac{3}{4}$ of his candies equally among the other three people. Later, Ben gives half of his candies to Dino. What fraction of the total number of candies does Dino have in the end?

A. $\frac{3}{32}$

B. $\frac{3}{8}$

C. $\frac{15}{32}$

D. $\frac{15}{24}$

E. $\frac{15}{16}$



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16. If powdered drink mix costs c cents per ounce and p pounds of it are purchased by a supplier who intends to resell it, what will be the total revenue, in dollars, in terms of c and p if all of the drink mix is sold at a price per ounce equivalent to three times what the supplier paid?

(16 ounces = 1 pound and 100 cents = 1 dollar)

- A. $48cp$
- B. $32cp / 100$
- C. $100(32) / (cp)$
- D. $12cp/25$
- E. $25cp/12$



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17.

Languages	Number of students
English	30
French	25
Spanish	20

The table above shows the number of students studying three different languages in a school. Although no student studies all three languages, 8 students study both English and French, 5 students study both French and Spanish and 7 students study both Spanish and English. How many different students study these three languages?

- A. 35
- B. 75
- C. 55
- D. 67
- E. 50



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18. Suppose 100 people were surveyed about their preferences for streaming services. Among them, 50 prefer Netflix, 30 prefer Amazon Prime Video, and 20 prefer Hulu. Additionally, 10 people prefer both Netflix and Amazon Prime Video, 5 prefer both Amazon Prime Video and Hulu, 4 prefer both Netflix and Hulu, and 2 people prefer all three services. How many people prefer only one of the three streaming services?
- A. 68
 - B. 77
 - C. 83
 - D. 85
 - E. 90



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19. In a bag, 40% of the items are red and remaining are green. Of all the items in the group, 70% have stripes. If 60% of the green items have stripes, what percent of the items in the bag are red and have stripes?
- A. 6
 - B. 24
 - C. 34
 - D. 36
 - E. 60



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20. In a certain flight $\frac{3}{4}$ of its seats were booked, including $\frac{2}{3}$ of its business class seats. If $\frac{3}{5}$ of its seats were business class, then what percent of the seats that were not booked were business class?
- A. 20%
 - B. $33\frac{1}{3}\%$
 - C. 35%
 - D. 40%
 - E. 80%





Thank you