SAT Math Practice

Topic: Linear Equations and Inequalities

Instructions

Solve the following problems related to linear equations and inequalities. Show all work clearly. For multiple-choice questions, circle the correct answer. For grid-in questions, fill in the grid with your answer.

Practice Problems

1. Solve for x: $3x + 5 = 20$

   (a) 5
   (b) 6
   (c) 7
   (d) 8

2. Solve for y: $4y - 7 = 9$

   (a) 2
   (b) 3
   (c) 4
   (d) 5

3. Solve for x: $5x + 3 = 2x + 12$

(a) 3
(b) 4
(c) 5
(d) 6

4. Solve for x: $2x - 7 = 3x + 8$

(a) -15
(b) -16
(c) -17
(d) -18

5. Solve for x: $4(x - 3) = 12$

(a) 3
(b) 4
(c) 5
(d) 6

6. Solve for y: $6y - 8 = 10y + 12$

(a) -5
(b) -6
(c) -7
(d) -8

7. Solve for x: $5(x + 2) = 3x + 16$

(a) 4
(b) 5
(c) 6
(d) 7

8. Solve for x: $2x + 5 > 11$

(a) $x > 2$
(b) $x < 3$
(c) $x > 3$
(d) $x < 2$

9. Solve for y: $3y - 4 \leq 2y + 5$

   (a) $y \leq 9$
   (b) $y \geq 9$
   (c) $y \leq 8$
   (d) $y \geq 8$

10. Solve for x: $7x - 3 < 4x + 12$

    (a) $x > 3$
    (b) $x < 3$
    (c) $x > 2$
    (d) $x < 2$

11. Solve for x: $3x + 4 = 2x + 7$

    (a) 1
    (b) 2
    (c) 3
    (d) 4

12. Solve for y: $5y - 7 = 3y + 5$

    (a) 5
    (b) 6
    (c) 7
    (d) 8

13. Solve for x: $9x + 6 = 3x + 18$

    (a) 2
    (b) 3
    (c) 4
    (d) 5

14. Solve for x: $4(x - 5) = 3x + 2$

    (a) 6
    (b) 7
    (c) 8

(d) 9

15. Solve for y: $2y + 1 \geq 5$

    (a) $y \geq 2$
    (b) $y \geq 3$
    (c) $y \leq 3$
    (d) $y \leq 2$

16. Solve for x: $6x + 5 = 2x + 25$

    (a) 3
    (b) 4
    (c) 5
    (d) 6

17. Solve for x: $8x - 4 = 3x + 11$

    (a) 3
    (b) 4
    (c) 5
    (d) 6

18. Solve for x: $2x - 4 = 10$
    (Grid-in Question: Answer in the grid as a number.)

19. Solve for y: $3y + 5 = 20$
    (Grid-in Question: Answer in the grid as a number.)

20. Solve for x: $3x + 2 = 8$
    (Grid-in Question: Answer in the grid as a number.)

21. Solve for y: $2y - 6 = 10$
    (Grid-in Question: Answer in the grid as a number.)

Answer Key

1. (c) 7
2. (b) 3
3. (a) 3
4. (a) -15
5. (c) 5
6. (a) -5
7. (a) 4
8. (c) $x > 3$
9. (a) $y \leq 9$
10. (b) $x < 3$
11. (c) 3
12. (a) 5
13. (a) 2
14. (b) 7
15. (a) $y \geq 2$
16. (c) 5
17. (a) 3
18. $x = 7$ (Grid-in answer)
19. $y = 5$ (Grid-in answer)
20. $x = 2$ (Grid-in answer)
21. $y = 8$ (Grid-in answer)