

Solve each equation below.

1. $5x + 2 = -x + 14$

2. $3x - 2 = x + 10$

3. $6x + 4x - 2 = 15$

4. $6x - 3x + 2 = -10$

5. $\frac{2}{3}y - 6 = 12$

6. $\frac{3}{4}x + 2 = -7$

7. $2(x + 2) = 3(x - 5)$

8. $3(m - 2) = -2(m - 7)$

9. $3(2x + 2) + 2(x - 7) = x + 3$

10. $2(x + 3) + 5(x - 2) = -x + 10$

11. $4 - 6(w + 2) = 10$

12. $6 - 2(x - 3) = 12$

13. $3(2z - 7) = 5z + 17 + z$

14. $-3(2z - 7) = -3z + 21 - 3z$

Solve for the named variable.

15. $2x + b = c$ (for x)

16. $3x - d = m$ (for x)

17. $3x + 2y = 6$ (for y)

18. $-3x + 5y = -10$ (for y)

19. $y = mx + b$ (for b)

20. $y = mx + b$ (for x)

Answers

1. 2

2. 6

3. $\frac{17}{10}$

4. -4

5. 27

6. -12

7. 19

8. 4

9. $\frac{11}{7}$

10. $\frac{7}{4}$

11. -3

12. 0

13. no solution

14. all numbers

15. $x = \frac{c-b}{2}$

16. $x = \frac{m+d}{3}$

17. $y = -\frac{3}{2}x + 3$

18. $y = \frac{3}{5}x - 2$

19. $b = y - mx$

20. $x = \frac{y-b}{m}$