

Solving Equations Review

Part I. Solve.

1. $17 = m + 8$

2. $z + 18 = 40$

3. $8 - y = -24$

4. $k + \frac{5}{6} = \frac{5}{18}$

5. $-\frac{3}{4} = w - \frac{11}{12}$

6. $\frac{9}{2}n = 36$

7. $\frac{5}{4} = -\frac{15}{4}a$

8. $0.03 = 3.5c - 1.02$

9. $\frac{k}{6} - 11 = -20$

10. $5x + 56 = 16$

11. $4r + 4 = \frac{2}{3}$

12. $\frac{7}{3} = 4 + \frac{5c}{2}$

13. $-14 = -(31 + p)$

14. $10(3r + 8) = 45$

15. $68 = -4(m + 9)$

16. $-10\left(\frac{2}{5} - f\right) = 86$

17. $-45 = 10(n + 3)$

18. $4(y + 8) = 7(y + 2)$

19. $5(3k - 6) = 6(2k - 3)$

20. $6(4 - 3j) = -2(3j - 5)$

21. $2(3x - 5) + 4 = 15 - (9x - 4)$

22. $7p - 2(3 - 4p) = 12p - (p + 4)$

23. $\frac{3}{10}y = 19 - \frac{1}{5}y$

24. $6a + 3 = \frac{5(4a + 1)}{3}$

25. $12c + 2.6 = 6.8c$

26. $0.55y - 4.5 = 0.05y + 5.5$

27. $-\frac{1}{2}(4w + 6) = \frac{1}{3}(9 - 3w)$

28. $7 + 3[4(2x - 3) - 8x] = 3x - 8$

29. $r + 4 = 4[2(8r - 7) + 5r] - 3r$

Part II. Solve for the indicated variable.

30. $C = K + 273$; for K

31. $V = Bh$; for B

32. $F = ma$; for a

33. $V = IR$; for I

34. $I = Prt$; for r

35. $i = \frac{1}{2}r^2w$; for w

36. $R = \frac{k\ell}{d^2}$; for ℓ

37. $F = \frac{gm_1m_2}{d^2}$; for m_1

38. $C = \frac{mv^2}{r}$; for r

39. $2c - 3d = 11$; for d

40. $3by - 2 = 2by + 1$; for y

41. $v = V + gt$; for t

42. $E = Ir + IR$; for r

43. $F = \frac{9}{5}C + 32$; for C

44. $t = \frac{n}{2}(a + 50)$; for a

45. $A = 2\pi r(r + h)$; for h

Answer List

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|---------------------------|-------------------------|---------------------------------|
| 1. 9 | 2. 22 | 3. 32 |
| 4. $-\frac{5}{9}$ | 5. $\frac{1}{6}$ | 6. 8 |
| 7. $-\frac{1}{3}$ | 8. 0.3 | 9. -54 |
| 10. -8 | 11. $-\frac{5}{6}$ | 12. $-\frac{2}{3}$ |
| 13. -17 | 14. $-\frac{7}{6}$ | 15. -26 |
| 16. 9 | 17. $-\frac{15}{2}$ | 18. 6 |
| 19. 4 | 20. $\frac{7}{6}$ | 21. $\frac{5}{3}$ |
| 22. $\frac{1}{2}$ | 23. 38 | 24. 2 |
| 25. -0.5 | 26. 20 | 27. -6 |
| 28. -7 | 29. $\frac{3}{4}$ | 30. $C - 273$ |
| 31. $\frac{V}{h}$ | 32. $\frac{F}{m}$ | 33. $\frac{V}{R}$ |
| 34. $\frac{I}{Pt}$ | 35. $\frac{2i}{r^2}$ | 36. $\frac{Rd^2}{k}$ |
| 37. $\frac{Fd^2}{gm_2}$ | 38. $\frac{mv^2}{C}$ | 39. $\frac{2c-11}{3}$ |
| 40. $\frac{3}{b}$ | 41. $\frac{v-V}{g}$ | 42. $\frac{E-IR}{I}$ |
| 43. $\frac{5}{9}(F - 32)$ | 44. $\frac{2t}{n} - 50$ | 45. $\frac{A-2\pi r^2}{2\pi r}$ |