Answer every question, performing calculations with no pencil or paper as much as possible. Aim to answer each question in 10 seconds or less. Practice the entire package several times.

State the Additive Inverse of Each value or term.

1. $\frac{2}{3}$
2. -6
3. $-\frac{4}{3}$
4. -0.47
5. $9n$

State the multiplicative inverse (reciprocal) of each value or term

6. 37
7. -12
8. $\frac{5}{9}$
9. $-\frac{8}{5}$
10. $9n$, where $n \neq 0$

Convert the improper fractions to mixed numbers, fractions reduced.

11. $\frac{8}{5}$
12. $\frac{12}{7}$
13. $\frac{20}{6}$
14. $\frac{30}{12}$
15. $\frac{28}{6}$

Translate into a math statement.

16. Three less than eight times a number
17. Five more than the square of a number
18. twelve less than a number
19. The quotient of a number and eight
20. Nine less than the reciprocal of a number

Add.

21. $-8 + 5$
22. $64 + (-4)$
23. $4 + (-7)$
24. $0 + (-6)$
25. $-8 + 11$

Subtract

26. $0 - 6$
27. $7 - 14$
28. $4 - (-3)$
29. $-9 - 6$
30. $-4 - (-10)$

Simplify via the Order of Operations

31. $6 - 3(2)$
32. $9 + 4(1)$
33. $6 - \frac{1}{3}(12)$
34. $4 \div 4(3)$
35. $8 \div 4(3) + 1$

Add like terms

36. $b + 7b$
37. $5y + (-9y)$
38. $-6a + (-7a)$
39. $7c - 11c$
40. $-15x - 2x$
41. $3x + 2y - x$

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Multiply via the Distributive Property

42. $8(4 - x)$
43. $3(x + 8)$
44. $-2(n + 11)$
45. $-5(-3 - b)$
46. $\frac{1}{6}(12x - 18)$
47. $\frac{2}{5}(10x - 5)$

Identify the inverse to isolate the unknown, then solve for the unknown. For example:

$b + 7 = 13$; "subtract 7(or add $^{-}7$); $b = 6$"

48. $n + 4 = 9$
49. $x - 7 = 13$
50. $a + 6 = -9$
51. $g - 8 = -2$
52. $r + 6 = -13$
53. $f - \frac{1}{2} = \frac{3}{2}$

Identify the inverse to isolate the unknown, then solve for the unknown. Keep fractions improper where appropriate. For example:

$5n = 23$; "divide by 5 (or multiply by $\frac{1}{5}$), $n = \frac{23}{5}$,,"

54. $5b = 17$
55. $6n = -20$
56. $-12g = 29$
57. $\frac{x}{3} = 4$
58. $-\frac{n}{6} = 9$

Solve for the unknown.

59. $5x + 4 = 10$
60. $3x - 5 = 6$
61. $7 + 2x = 8$
62. $\frac{x}{2} + 3 = -5$
63. $6 - \frac{x}{5} = -4$
64. $-9 - \frac{x}{4} = 0$

Say if the last line of a linear equation solution is either unique, no real solution, or all real numbers.

65. $x + 1 = x + 1$
66. $a = -3$
67. $x = 0$
68. $27 = 31$
69. $-3x = -3x + 1$

Figure it out!

70. $17^2 - 4$
71. $4^2 - 4(2)(1)$
72. $\frac{15^2}{100}$; write as a decimal
73. $\frac{3}{4} \div 4 \cdot 8$
74. $(\frac{1}{4} \cdot \frac{1}{4})^2$