

Complete by evaluating each expression.

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|-----------------------------------|---------------------------------------|-------------------------------------|
| 1. $8(3 + m) + m$ for $m = 92$ | 2. $\frac{u}{11} + u$ for $u = 77$ | 3. $2q + 43$ for $q = 6$ |
| 4. $b^2 - 10b$ for $b = 11$ | 5. $r^2 + 8r - 9 + r$ for $r = 4$ | 6. $29h \div 3 + h$ for $h = 18$ |

Solve each equation.

| | | |
|---------------------|--------------------|-------------------|
| 7. $16 = 64 \div k$ | 8. $93 - c = 30$ | 9. $e + 39 = 74$ |
| 10. $2 = w \div 18$ | 11. $98 + n = 112$ | 12. $221 = 13j$ |
| 13. $19a = 152$ | 14. $t - 21 = 36$ | 15. $98 = d + 14$ |

Combine like terms.

| | |
|---------------------|-----------------------------------|
| 16. $11s + 4s + 12$ | 17. $6x + 7x^2 - 9x + 5x^2 - 14x$ |
|---------------------|-----------------------------------|

Express each phrase as an algebraic expression.

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|---|--|
| 18. 2 times the product of 3 and a number t | 19. 6 times the quotient of 5 and a number v |
| 20. 3 more than the sum of a number z and 41 | 21. 4 less than 24 times a number k |
| 22. 7 less than the difference of 39 and a number y | 23. 11 plus 19 increased by a number b |

Name _____

Express each phrase as an algebraic expression.

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|---------------------------------------|-------------------------------------|
| 24. difference of a number r and 29 | 25. quotient of a number c and 34 |
| 26. 42 increased by a number d | 27. sum of 21 and a number j |
| 28. a number x times 23 | 29. add 28 to a number a |

Solve each equation.

| | |
|---------------------------------|---------------------------------|
| 30. $11 + n - 7 = 41$ | 31. $f - 13 + 15 - 2 - 19 = 20$ |
| 32. $54 = 16 + 18 + 14 + s$ | 33. $4 + p - 5 = 23$ |
| 34. $104 = 8 + 6 - 18 + 11 + q$ | 35. $13 + 15 + 5 + h = 81$ |

Solve each equation.

| | | |
|-------------------|-------------------|-------------------|
| 36. $12 = 45 - p$ | 37. $38 - n = 16$ | 38. $10 = m - 80$ |
| 39. $y - 32 = 47$ | 40. $a - 5 = 54$ | 41. $90 - w = 54$ |
| 42. $31 = h - 66$ | 43. $6 = 33 - u$ | 44. $q - 35 = 46$ |

Solve each equation.

| | | |
|------------------------|-----------------------|---------------------|
| 45. $19 = 304 \div z$ | 46. $42 = 3s$ | 47. $14k = 182$ |
| 48. $11f = 176$ | 49. $15r = 105$ | 50. $9 = x \div 12$ |
| 51. $\frac{c}{19} = 8$ | 52. $12 = 216 \div b$ | 53. $26 = 13z$ |