

Grade 6 algebra test

NAME	DATE	SCORE / 12
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Answer each question. Show your work.

1 If $n = 2$, what is $2n + 6$?	2 Write the factors of the term $8x$ in $8x + 4n + 5$, a number and a letter.
3 Write $7(x + 12)$ without parentheses.	4 Find the value of $4n^2$ when $n = 2$.
5 Write $9 + 5x + 1 - x + 6x$ with like terms collected.	6 Solve for x: $x - \frac{1}{2} = \frac{1}{3}$
7 Write an expression for "8 times the difference of a number n and 12".	8 Solve for x: $5x = 10$
9 Is $x = 7$ a solution of $2x + 14 = 30$? ☐ Yes, both sides equal 30 ☐ No, the left side equals 28 ☐ No, the left side equals 41 ☐ No, the left side equals 42	10 Which property shows that $(9x + 2) + 8 = 9x + (2 + 8)$? ☐ Commutative property of addition ☐ Associative property of multiplication ☐ Associative property of addition ☐ Commutative property of multiplication
11 To win, Ben needs more than 38 votes. Let v be the number of votes Ben gets. Write an inequality that shows this.	12 The letter n is used in two ways below. Rule: Pens cost \$4 each, so n pens cost $4n$ dollars. Equation: $4n = 16$ In which one can n stand for many different numbers? ☐ In the equation ☐ In neither ☐ In both ☐ In the rule

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1	10	2	8 and x	3	$7x + 84$
4	16	5	$10x + 10$	6	$\frac{5}{6}$
7	$8(n - 12)$	8	2	9	No, the left side equals 28
10	Associative property of addition	11	$v > 38$	12	In the rule