

Algebra 1

Pronumerals, Terms, Like Terms, Unlike Terms, Expressions, Simplify, Evaluate

PLEASE NOTE there are THREE parts to each question.

1	Simplify $x + 2x - 3y$	$2x + 3xy - 3x + 6y$	$3ab - 3a - 3b - 4ba$
2	If $x = 2$, $y = 0$ and $z = -1$, evaluate xyz	$x^2 + y^2 + z^2$	$x - z + x(z - y)$
3	Simplify $a^2 \times a$	$2xy \times 3y^2$	$4x^2 \times 3x^3$
4	Simplify $a^5 \div a^3$	$\sqrt{x^{10}}$	$8x^4 \div 24x$
5	Solve $x + 6 = 12$	$x^3 = 27$	$a^2 = 81$ (careful 2 ans)
6	Solve $a - 2 > 1$	$\frac{x}{3} - 5 = -2$	$3b - 2 < 7$
7	Simplify $5x^2 + 2x - 4x^2 - x$	$4x - 10x$	$2ab + 3a - 3b - 3ba$
8	Simplify $3t^2 \times 5t$	$(-2x^3)$	$-(6x^2y)^2$
9	Simplify $4ab \div 4b$	$6x^9 \div 3x^3$	$5ac \div 10bc$
10	Simplify $\frac{8x^4}{24x^3}$	$\frac{3a^4 \times 4a^2}{6a^3}$	$\frac{12a^3}{15a^5}$
11	Simplify $\frac{x}{3} + \frac{x}{4}$	$\frac{2a}{5} - \frac{3a}{10}$	$\frac{3}{4a} - \frac{2}{5a}$
12	Simplify $\frac{7}{a} \times \frac{3}{b}$	$\frac{u}{2v} \times \frac{4v}{7u}$	$\frac{6a^4}{3b^2} \times \frac{8b^4}{4a^2}$
13	Simplify $\frac{b}{6} \div \frac{b}{3}$	$\frac{2a}{4b} \div \frac{6}{b}$	$\frac{3y^2}{8z} \div \frac{6y}{4z^2}$
14	If $x = \frac{1}{2}$ Evaluate $3x$	$3x + \frac{1}{2}$ x^2	$\frac{1}{2}x$ $4x + 2$

15	If $a = 3$, $b = -2$, $c = 0$, Evaluate abc	$a - b$ $a^2 - b^2$	$b(a - b)$ $ab + bc$
16	If a book costs x cents, what do 150 books cost? Give answer in dollars.	If you walk at a rate of 4 km/h. how far will you walk in x hours?	How far will a train go in y hours at the rate of x km/h?
17	$c^2 = a^2 + b^2$ Find c when $a = 8$, $b = 6$	$I = \frac{Prn}{100}$ Find I when $P = 600$, $r = 4$, $n = 5$	$A = \frac{1}{2}d(a + b)$ Find A when $d = 20$, $a = 24$, $b = 26$
18	If $f(x) = 3x - 1$, find $f(1)$, $f(10)$, $f(-1)$	If $g(x) = 2t - 7$, find $g(0)$, $g(3)$	If $h(x) = x^2 - 2$, find $h(2)$, $h(-2)$
19	Simplify $7b \times b \times 4 \times b$	$\frac{1}{2}(6x + 4y)$	$2(x + y) - x$
20	Simplify $\sqrt{x^4}$	$4c - c - ab - c$	$\frac{3ab^2 \times bc}{6abc}$
21	Expand and simplify $2(x+5) + 8$	$7x + 3(x + 7) - 10$	$5(2x^2 + 3) + 2x(3 - 2x)$
22	Expand and simplify $8x - 2(x + 5)$	$2x + y - (x - y)$	$3(a + 2b) - 4(a - b)$
23	Expand and simplify $-a^2(a^2 + 2a - 3)$	$-(y - 2x)$	$12 - (3(a - 4))$
24	Expand and simplify $-6(x - y - 3z)$	$6(x + y) + 2(3y - 3x)$	$10x + (7 - 3x)$
25	Expand and simplify $-5x(3x - 2y + 10z)$	$5(a + 1) - 3(a - 1)$	$-3(2x + 4) + 5(x - 4)$