

NAME : _____ FORM : _____

ALGEBRAIC EXPRESSIONS

Simplify each of the following.

1	$p + p$	13	$7c + 7c$	25	$-7p + p$	37	$3p + \underline{\hspace{2cm}} = 10p$
2	$2b + b$	14	$p + 12p$	26	$-10y + 3y$	38	$6c + \underline{\hspace{2cm}} = 10c$
3	$a + 3a$	15	$6r + 3r$	27	$3k + 10k$	39	$\underline{\hspace{2cm}} + 2cd = 4cd$
4	$3y + y$	16	$6y - 3y$	28	$-2x + 5x$	40	$3ab + \underline{\hspace{2cm}} = 8a$
5	$r + 16r$	17	$8a - 2a$	29	$-6x + 3x$	41	$3pqr + 6pqr$
6	$3c + 2c$	18	$7k - 2k$	30	$-2x + 3x$	42	$6m + 5m$
7	$6x + 4x$	19	$10k - k$	31	$-x + 5x$	43	$5m + 2m$
8	$y + 10y$	20	$7m - m$	32	$4pq + pq$	44	$m + 10m$
9	$3r + 7r$	21	$3p - p$	33	$x + 10x$	45	$20y - 13y$
10	$7k + 9k$	22	$6x - 6x$	34	$2ab - ab$	46	$3xy + 2xy$
11	$6b + 7b$	23	$7p - 3p$	35	$3pq - pq$	47	$4ab + 3ab$
12	$2c + 13c$	24	$-x + 3x$	36	$10cd - 3cd$	48	$2mn + mn$

ALGEBRAIC EXPRESSIONS (Algebraic Fraction)

Simplify each of the following to a single fraction in its lowest term

1	$\frac{1}{a} + \frac{1}{a}$	11	$\frac{a}{2} + \frac{a}{4}$	21	$\frac{2}{3m} - \frac{1}{15m}$	31	$\frac{2d}{3e} + \frac{3}{ed}$
2	$\frac{2}{a} + \frac{3}{a}$	12	$\frac{a}{2} + \frac{a}{6}$	22	$\frac{1}{ax} + \frac{1}{ab}$	32	$\frac{3}{10y} - \frac{1}{10y}$
3	$\frac{a}{3} + \frac{a}{3}$	13	$\frac{b}{2} + \frac{b}{8}$	23	$\frac{3}{3u} + \frac{1}{12u}$	33	$\frac{2}{qr} + \frac{1}{pqr}$
4	$\frac{b}{5} + \frac{2b}{5}$	14	$\frac{2a}{3} - \frac{a}{6}$	24	$\frac{h}{gk} + \frac{k}{gh}$	34	$\frac{3}{m^2} - \frac{1}{mc}$
5	$\frac{1}{3a} + \frac{2}{3a}$	15	$\frac{2}{a} + \frac{3}{2a}$	25	$\frac{3}{a^2} + \frac{1}{ab}$	35	$\frac{2}{xy^2} - \frac{1}{x^2y}$
6	$\frac{2}{a} - \frac{1}{a}$	16	$\frac{1}{b} + \frac{5}{3b}$	26	$\frac{3}{2y} - \frac{1}{3y}$	36	$\frac{a}{4w} + \frac{2a}{10w}$
7	$\frac{3a}{3} - \frac{a}{3}$	17	$\frac{2}{c} + \frac{7}{3c}$	27	$\frac{x}{9n} - \frac{y}{3}$	37	$\frac{2}{10d} + \frac{1}{5d}$
8	$\frac{4b}{5} - \frac{3b}{5}$	18	$\frac{1}{5d} + \frac{3}{d}$	28	$\frac{2}{3c} - \frac{1}{5c}$	38	$\frac{2}{3f} - \frac{1}{f}$
9	$\frac{6x}{7} - \frac{2x}{7}$	19	$\frac{3}{st} - \frac{1}{st^2}$	29	$\frac{3}{p^2q} - \frac{2}{pq}$	39	$\frac{4}{cd} + \frac{2}{c}$
10	$\frac{h}{gk} - \frac{k}{gh}$	20	$\frac{3}{4b} + \frac{2}{5b}$	30	$\frac{7}{pq} - \frac{3}{q}$	40	$\frac{2}{3ab} + \frac{1}{6a}$

ALGEBRAIC EXPRESSIONS

Expand each of the following

1	$2(a + b)$	14	$5(2x + 3y)$	27	$-3(x - y)$
2	$5(x + y)$	15	$-4(2x - y)$	28	$-5(2a - b)$
3	$7(c + d)$	16	$3(a - b)$	29	$6(7f - 5e)$
4	$2(2a + b)$	17	$2(x - y)$	30	$2(a + b + c)$
5	$5(x + 3y)$	18	$2(2a - b)$	31	$2(a + b - c)$
6	$7(4c + d)$	19	$3(4c - d)$	32	$3(x + y + z)$
7	$3(3p + 2q)$	20	$4(4a - 5b)$	33	$3(x - y - z)$
8	$4(2x + 3y)$	21	$-2(a + b)$	34	$2(2a - b + c)$
9	$5(4a + 5b)$	22	$-3(x + y)$	35	$2(2a + b + c)$
10	$6(5e + 7f)$	23	$-4((2x + y)$	36	$3(3x - 2y - z)$
11	$7(c - d)$	24	$-5(2a + b)$	37	$3(3x + 2y + z)$
12	$5(3y - x)$	25	$-6(3p + 2q)$	38	$4(p - 2q - r)$
13	$7(3p - 2q)$	26	$-2(a - b)$	39	$4(p + 2q + r)$