

WORKSHEET CLASS 8

ALGEBRAIC EXPRESSIONS AND IDENTITIES

Q 1 Match the column.

Column I	column II
i) $x^2y + xy^2$	Polynomial
(ii) $564xy$	Trinomial
(iii) algebraic coefficient of x in $-25xyz$	Monomial
(iv) $x^2 + x + 7$	Binomial
(iv) $xy + yz + zp + px + 9xy$	$-yz$

Q 2. The area of a square with side $5x^2y$ is

- (i) $25x^2y$ (ii) $25x^2y^2$ (iii) $25x^4y^2$ (iv) $5x^2y^2$

Q 3. The area of a rectangle whose length and breadths are given as $3x^2y$ m and $5xy^2$ m respectively is

- (i) $15x^2y^3 m^2$ (ii) $15x^3y^3 m^2$
(ii) $15x^3y^2 m^2$ (iv) $15x^2y^2 m^2$

Q 4. $(x + y + z)(x + y - z)$ is

- (i) $x^2 + y^3 - z^2 + 2xy$ (ii) $x^3 + y^2 - z^3 + 2xy$
(iii) $x^2 + y^2 - z^2 + 2xy$ (iv) $x^2 + y^2 - z + 2xy$

Q 5. Simplify $(x^2 - y^2)^2 + 4x^2y^2$

(i) $(x^2 + y^2)^3$ (iii) $(x^2 - y^3)^2$

(ii) $(x^2 + y^2)^2$ (iv) $(x^2 - y^2)^2$

Q 6. The value of x if $8x = 35^2 - 27^2$

(i) 62 (ii) 26 (iii) -62 (iv) -26

Q 7. $(1.1m - 0.4)(1.1m + 0.4)$ is

(i) $1.21m^2 - 0.16$ (iii) $1.21m^2 - 1.6$

(ii) $12.1m^2 - 1.6$ (iv) $1.21m^2 - 16$

Q 8. $\left(\frac{c^2}{4} - \frac{a^2}{4}\right)$ is

(i) $\left(\frac{c}{2} - \frac{a}{2}\right)\left(\frac{c}{2} - \frac{a}{2}\right)$ (ii) $\left(-\frac{c}{2} - \frac{a}{2}\right)\left(\frac{c}{2} - \frac{a}{2}\right)$

(iii) $\left(\frac{c}{2} - \frac{a}{2}\right)\left(\frac{c}{2} + \frac{a}{2}\right)$ (iv) $\left(\frac{c}{2} - \frac{a}{2}\right)\left(-\frac{c}{2} + \frac{a}{2}\right)$

Q 9. Subtraction of $5x^2 - 6y^2 + 8y - 5$ from $7x^2 - 5xy + 10y^2 + 5x - 4y$

(i) $7x^2 + 5xy + 10y^2 + 5x + 4y$

(ii) $2x^2 - 5xy + 16y^2 + 5x - 12y + 5$

(iii) $-2x^2 - 5xy + 16y^2 + 5x - 12y$

(iv) $2x^2 - 5xy + 16y^2 + 5x - 12y + 5$

Q 10. Identify the monomial, binomial and polynomials

$5x - 14x$, $3x^2$, $-9x^2$, -2 , $x^2 + x + 2$,

$xy - 3xy$, $a + b + c$, $4x^3y^2 - 4x^2y^2z^2 + z^2 - 4xy^2 - y^2z^2$.

$x^2 + x + 2$, $4x^2y^2 - z^2$

MONOMIAL

BINOMIAL

POLYNOMIAL

