

St. Andrews Scots Sr. Sec. School

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Session: 2026-2027 - Worksheet

Class: VIII

Subject: Maths

Topic: Algebraic Expressions and Identities

Worksheet No:11

Q1. Subtract $(4p^2q - 3pq + 5pq^2 - 8p + 7q - 10)$ from $(18 - 3p - 11q + 5pq - 2pq^2 + 5p^2q)$

Q2. Find the volume of a cube whose dimensions are $2x$, $(x-7)$ and $(3x-5y)$.

Q3. Simplify :

(a) $\left(\frac{3}{4}a^2 + 3b^2\right) \times 4\left(a^2 - \frac{2}{3}b^2\right)$

(b) $(1.5x - 4y)(1.5x + 4y + 3) - 4.5x + 12y$

Q4. Subtract the sum of $8x - 5y - 2z$ and $-6x + 8y - 4z$ from the sum of $6x + 2y - 4z$ and $-2x + 4y - 8z$.

Q5. Divide :

(a) $(-60p^2q^2r^2)$ by $(-12pq^2)$

(b) $108ab^2c^3$ by $(-4abc)$

Q6. Divide

(a) $8x^2y^2 - 6xy^2 + 10x^2y^3$ by $2xy$

(b) $10a^2b - 6abc + 12a^2b^2c^3$ by $3abc$

Q7. Solve using Identities :

(a) $(1.5x + 0.4y)(1.5x - 0.4y)$

(b) $(2y^2 + 5)(2y^2 + 5)$

(c) $(m^2 - n^2)^2$

(d) $\left(\frac{3}{4}a^2 + \frac{2}{3}b^2\right)\left(\frac{3}{4}a^2 - \frac{2}{3}b^2\right)$

Q8. Evaluate using Identities :

(a) $(107)^2$

(b) 88×92

(c) 198×203

(d) $(98)^2$

Q9. Simplify :

(a) $(7m - 8n)^2 + (7m + 8n)^2$

(b) $(x^2y)^2 \times (-2x^2y^2)^3 \times (-5xyz)$

Q10. Solve using identity: 998×1002