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Introduction to Algebra

Student Worksheet

Questions & Working Space

IGCSE Mathematics

Name: _____

Date: _____

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Note

How to use this worksheet. These questions are built *strictly* on the *Introduction to Algebra* notes: variables, constants, terms and coefficients; algebraic notation and conventions; writing expressions from words; substitution; simplifying by collecting like terms; multiplying and dividing algebraic terms; forming expressions and formulas; and telling expressions, equations, identities and formulas apart.
Working space. Ruled lines are provided after each question — show *all* of your working there. Always write your answers using correct algebraic notation, and use brackets when you substitute negative numbers. Harder questions have a teal **Hint** box; try the question first and use the hint only if you are stuck.
Checking your answers. Full step-by-step solutions, a marking scheme for the exam paper, and a quick answer key are in the separate booklet *"Introduction to Algebra — Solutions & Answer Key."* Try each question honestly before you look.

1 Part I — Topic-by-Topic Exercises

1.1 Variables, Constants and Terms

Exercise V1 *[Basic]*

Look at the expression $8x + 5$. Write down:

(a) the variable,

(b) the coefficient of x,

(c) the constant term.

Exercise V2 *[Basic]*

How many terms are there in the expression $6a - 3b + 9$? Write down the constant term.

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Exercise V3 *[Standard]*

For the expression $5p^3 - 7p + 2$, copy and complete a table with the headings *Term*, *Variable part* and *Coefficient*, filling in one row for each term.

Exercise V4 *[Standard]*

In the expression $9m^2 - m + 4n - 13$, write down:

(a) the coefficient of m^2,

(b) the coefficient of m,

(c) the coefficient of n,

(d) the constant term.

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Exercise V5 *[Intermediate]*

A student writes: *"In the expression $4 - 7t$, the coefficient of t is 7 and the constant term is -4."*
Identify **both** errors and state the correct coefficient and constant term.

Preview ends here

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