**Integers, Powers and Roots (H)**

Pre-Intervention Assessment

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Question** | **Objective** | **RAG** |
| 1 | Apply laws of indices |  |
| 2 | Write numbers in standard form |  |
| 3 | Calculate in standard form |  |
| 4 | Simplify surds |  |
| 5 | Expand brackets involving surds |  |
| 6 | Rationalise denominators |  |

**1.** Work out

(i) 4º (ii) 4-2 (iii) 163/2

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**2.** (a) Write 40 000 000 in standard form.

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(b) Write 3 x 10–5 as an ordinary number.

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**3.** Work out the value of 3 x 10–5 x 40 000 000

Give your answer in standard form.

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**4.** Write √72 in the form *k*√2 , where *k* is an integer.

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**5.** Expand and simplify (√3 - √2)(√3 + √2)

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**6.** Rationalise the denominator of \_3\_

√6

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[Glue here]