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

Post-Intervention Assessment

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

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

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

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| **Question** | **Objective** | **RAG** |
|  1 | Identify factors, multiples and prime numbers |  |
|  2 | I can express a number as a product of its prime factors |   |
|  3 | I can calculate a pair of number’s HCF and LCM |   |
|  4 | I can evaluate powers and roots |   |
|  5 | I can apply basic laws of indices  |   |

**1.** Using only the numbers in the cloud, write down:

4 7 22

19 8 16

15 21 25

|  |  |
| --- | --- |
| all the multiples of 5 | all the square numbers |
| all the factors of 16 | all the prime numbers |

**2a.** Express the following numbers as products of their prime factors.

(i) 36, (ii) 30.

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**b.** Find the HCF of 36 and 30. **c.** Work out the LCM of 36 and 30.

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 **3.** Work out the value of:

(i) 52 (ii) √81 (iii) 4 × 13

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**4.** Write as a power of 3

(i) 34 x 38 (ii) $\frac{3^{6} x 3^{2}}{3^{5}}$

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[Glue here]