

Teacher Notes

Stage 9, Unit 1: Calculating

Check in

The following boarding card is intended to check that your students have a secure grasp of the knowledge required for this unit, with the intention of it being used diagnostically rather than as a summative test:

- Know the meaning of powers
- Know the meaning of roots
- Know the multiplication and division laws of indices
- Understand and use standard form to write numbers
- Interpret a number written in standard form
- Round to a given number of decimal places or significant figures
- Know the meaning of the symbols $<$, $>$, \leq , \geq

ANSWERS:

- 1 64
- 2 i $>$ ii $<$
- 3 11
- 4 30
- 5 4^0
- 6 a^3
- 7 1.2×10^6
- 8 0.000456
- 9 No it should be 460. The number is rounded to 2 decimal places
- 10 i 1, 2, 3, 4, 5, 6 ii -1, 0, 1, 2

Destination: **Calculating**

- 1 Evaluate 4^3
- 2 Insert the correct symbol $<$, $>$, \leq , \geq to make the statements correct:
i) 2^5 5^2 ii) 4^3 3^4
- 3 Find $\sqrt{121}$
- 4 Find $\sqrt{900}$
- 5 Simplify $y^3 \times y^5$
- 6 Simplify $a^6 \div a^3$
- 7 Write 1.2 million using standard form
- 8 Write 4.56×10^{-4} as a decimal number
- 9 Kenny thinks 456.789 rounded to 2 significant figures is 456.79. Do you agree? Explain your answer.
- 10 Find all the possible values for N if:
i) $N \leq 7$ and a positive integer ii) $-1 < N < 3$ and N is an integer

Stage 9 Unit 1 take-off

Name: _____

Things to remember:



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