TEACHER'S NAME: NAME: CLASS:

1.1 INDEX NOTATION

A. State the base and index of the following indices.

Number	2^5	$(0.7)^6$
Base		
Index		

B. State the following repeated multiplications in index form.

Match the following.

$5 \times 5 \times 5 \times 5 \times 5 \times 5$	$(-4)^3$
$5 \times 5 \times 5$	k^7
$(-4) \times (-4) \times (-4)$	5^3
$(-4) \times (-4) \times (-4) \times (-4)$	k^3
$k \times k \times k$	$(-4)^4$
$k \times k \times k \times k \times k \times k \times k$	5^6

C. Calculate the value of the given index numbers.

1. $(0.7)^3 = $ _____

2. $\left(-\dfrac{2}{3}\right)^3 = $ _____ (Write in fraction. Example -5/6)

LIVEWORKSHEETS

1.2 LAW OF INDICES

DRAG THE SUITABLE ANWERS AND PUT THE ANSWERS IN THE SPACES PROVIDED.

| $x = 3, -2$ | 14 | m^8 | $6w^{13}$ | 1 | 4^{15} |

| $x = 1, y = -\dfrac{2}{3}$ | 7^6 | $7^8 \times 11^2$ | 4^7 | h^3 | 4 |

1. Simplify $\quad 7^2 \times 7^4$ _____

2. Simplify $\quad m^4 \times m^3 \times m$ _____

3. Simplify $\quad 2w^2 \times \dfrac{1}{5} w^3 \times 15 w^8$ _____

4. Simplify $\quad 4^8 \div 4$ _____

5. Simplify $\quad h^8 \div h^4 \div h$ _____

6. Simplify $\quad \left(4^3\right)^5$ _____

7. Simplify $\quad \left(7^4 \times 11\right)^2$ _____

8. Simplify $\quad 32^{\frac{2}{5}}$ _____

9. Find the value of x. $\quad 25^x \div 125 = \dfrac{1}{5^x}$ _____

10. Find the value of $\sqrt[3]{343} \times 3^{-1} \div \left(\sqrt{36}\right)^{-1}$ _____

11. Find the possible values of x for the equation of $2^{x^2} \div 2^x = 64$

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12. Solve the simultaneous equation of $9(9)^x = 27^{y+2}$ and $4^x \times 8^y = 1$.

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