

First Name: _____

Last Name: _____

L04 - Math 10C - 4.2 - Integral Exponents Formative QuizQ1: Simplify. Write your answer with **positive exponents** only. (3 marks)

$$3x^{-2}$$

$$\boxed{\frac{3}{x^2}}$$

$$(2x^{-3})^2$$

$$2^2 x^{-6}$$

$$= \boxed{\frac{4}{x^6}}$$

$$\frac{3x^2}{x^{-3}}$$

$$\frac{3x^2 \cdot x^3}{1}$$

$$= \boxed{3x^5}$$

Q2: The expression $\frac{10x^{-2}y^3z^4}{5xy^{-2}z}$ simplifies to $\frac{2y^b z^c}{x^a}$, where a , b , and c are __, __, and __.

(Record your **three digit** answer in the Numerical Response boxes below)

3	5	3	
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$$\frac{10y^3 z^4 y^2}{5x z x^2} = \frac{10y^5 z^4}{5x^3 z} = \frac{2y^5 z^3}{5x^3}$$

$$a = 3$$

$$b = 5$$

$$c = 3$$

Q3: Simplify. Write your answer with **positive exponents** only. (2 marks)

$$\frac{(3x^2)^{-3}z^4}{y^{-2}(z^2)^2}$$

$$\frac{3^{-3}x^{-6}z^4}{y^{-2}z^4} = \frac{y^2z^4}{3^3x^6z^4} = \boxed{\frac{y^2}{27x^6}} \text{ or } \boxed{\frac{y^2}{3^3x^6}}$$

MARKING

Beginning	0.0 – 2.5
Progressing	3.0 – 4.0
Competent	4.5 – 5.5
Exemplary	6.0