Show your work to receive full marks.

Total: /26

Mrs. Behnke MAP 4CI Review for Algebraic Models Quiz Name:_____

1. Simplify using the exponent laws, then evaluate.

/6 Give your answer as an integer or a fraction.

a) $3^{-4} \times 3^2 \times 3^5$ b) $5^{15} \div 5^{13}$ c) $\left(10^3\right)^{-1}$

2. Simplify the following exponential expressions using the Exponent Laws (remember: no negative exponents in your answers).

/14

a) $x^2\left(x^4\right)^3$ b) $\frac{d^{-2}}{d^2}$ c) $\left(x^{-2} \times x^6\right)^2$

d) $\left(x^{10}y^3\right) \div \left(x^4y^{-1}\right)^2$ e) $\left(2x^5y\right)^3$ f) $(-37x^2y^{24})^0$

g) 2^0 h) -2^0 i) $(-2)^0$

3. Express in radical form, then evaluate exactly.

/6 a) $25^{\frac{3}{2}}$ b) $81^{\frac{3}{4}}$ c) $(-64)^{\frac{2}{3}}$

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