

Topic 6 LOE Test Review

Date _____ Period _____

SIMPLE: Simplify. Your answer should contain only positive exponents. Show all Work.

1) $3y^2 \cdot 3x^{-1}y^{-3}$

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

3) $\frac{4m^2n^{-4}}{6n^{-1}}$

Complex: Simplify. Your answer should contain only positive exponents. Show all Work.

4) $\frac{6x^6y^3}{2x^{-2} \cdot 4xy^2}$

5) $\frac{2m^{-5}n^3 \cdot 5n^{-3}}{5m^{-4}n^5 \cdot m^2n^{-5}}$

6) $(x^0y^5)^{-2} \cdot x^2y^5 \cdot 2x^{-3}y^2$

7) $(y^0 \cdot x^4y^4 \cdot 2xy^{-3})^6$

8) $\frac{2x^6y^{-5}}{(2yx^3)^3}$

9) $\frac{2u^{-2}v^{-6}}{(u^0v^2)^4}$

Application: Simplify. Your answer should contain only positive exponents. Show all Work.

10) $\frac{a \cdot 2a^4b^5}{(2ab^{-4})^3 \cdot 2a^{-4}}$

11) $\left(\frac{(x^5y^{-1})^6 \cdot 2x^2y^4}{2yx^4 \cdot x^6} \right)^4$

Answers to Topic 6 LOE Test Review (ID: 1)

1) $\frac{9}{xy}$

5) $\frac{2}{m^3}$

9) $\frac{2}{u^2v^{14}}$

2) $\frac{81y^{12}}{x^{16}}$

6) $\frac{2}{y^3x}$

10) $\frac{b^{17}a^6}{8}$

3) $\frac{2m^2}{3n^3}$

7) $64x^{30}y^6$

11) $\frac{x^{88}}{y^{12}}$

4) $\frac{3x^7y}{4}$

8) $\frac{1}{4y^8x^3}$