

LOE Day 6 Review

Date _____ Period _____

Simplify. Show all of your work.

$$1) \frac{(-pm^{-2})^{-4}}{(-2m^{-6}n^3p^3)^6 \cdot (2n^6p^3)^3}$$

$$2) \frac{2y^{-4}z^2 \cdot x^4y^6z^3}{(-2x^{-5}y^2z^4)^3}$$

$$3) \left(-\frac{2m^5n^{-3} \cdot -2pm^{-6}}{2m^4n^4} \right)^{-5}$$

$$4) \left(-\frac{2y^4z^5}{2zx^3y^2 \cdot x^4y^2z^2} \right)^5$$

$$5) \left(-\frac{x^6 z^6}{(2y^3 z^{-4})^6 \cdot (-2x^{-4} y^6 z^5)^4} \right)^{-1}$$

$$6) \frac{2m^{-5} n^6 p^2 \cdot -2m^{-4} n^{-3} p^6}{(-2mn^{-5} p^3)^{-2}}$$

$$7) \frac{(-m^{-1} p^6 q^{-3})^{-6}}{-2p^{-5} q^3 \cdot (-2m^{-1} p^2 q^{-5})^{-2} \cdot -2p}$$

$$8) \left(-\frac{x^3 y^5 z^3}{yx^3 \cdot -xy^5 z^{-1}} \right)^{-4}$$

$$9) \left(\frac{x^5 y^{-4} z^{-5} \cdot -2x^4 y^6 z^5}{-y^4} \right)^5$$

$$10) \frac{m^5 p^{-2} q^{-3}}{(2mpq^{-1})^6 \cdot (2m^5 q^3)^5}$$

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Simplify. Show all of your work.

$$1) \frac{(-pm^{-2})^{-4}}{(-2m^{-6}n^3p^3)^6 \cdot (2n^6p^3)^3}$$

$$\frac{m^{44}}{512p^{31}n^{36}}$$

$$2) \frac{2y^{-4}z^2 \cdot x^4y^6z^3}{(-2x^{-5}y^2z^4)^3}$$

$$-\frac{x^{19}}{4y^4z^7}$$

$$3) \left(-\frac{2m^5n^{-3} \cdot -2pm^{-6}}{2m^4n^4} \right)^{-5}$$

$$\frac{n^{35}m^{25}}{32p^5}$$

$$4) \left(-\frac{2y^4z^5}{2zx^3y^2 \cdot x^4y^2z^2} \right)^5$$

$$-\frac{z^{10}}{x^{35}}$$

$$5) \left(-\frac{x^6 z^6}{(2y^3 z^{-4})^6 \cdot (-2x^{-4} y^6 z^5)^4} \right)^{-1} \\ - \frac{1024 y^{42}}{z^{10} x^{22}}$$

$$6) \frac{2m^{-5} n^6 p^2 \cdot -2m^{-4} n^{-3} p^6}{(-2mn^{-5} p^3)^{-2}} \\ - \frac{16 p^{14}}{m^7 n^7}$$

$$7) \frac{(-m^{-1} p^6 q^{-3})^{-6}}{-2p^{-5} q^3 \cdot (-2m^{-1} p^2 q^{-5})^{-2} \cdot -2p} \\ \frac{m^4 q^5}{p^{28}}$$

$$8) \left(-\frac{x^3 y^5 z^3}{yx^3 \cdot -xy^5 z^{-1}} \right)^{-4} \\ \frac{x^4 y^4}{z^{16}}$$

$$9) \left(\frac{x^5 y^{-4} z^{-5} \cdot -2x^4 y^6 z^5}{-y^4} \right)^5 \\ \frac{32 x^{45}}{y^{10}}$$

$$10) \frac{m^5 p^{-2} q^{-3}}{(2mpq^{-1})^6 \cdot (2m^5 q^3)^5} \\ \frac{1}{2048 p^8 q^{12} m^{26}}$$