

Unit 7A PC Review

Date _____

Period _____

Simplify. Your answer should contain only positive exponents.

1) $-2h^2k^{-4}$

$$-\frac{2h^2}{k^4}$$

2) $3mp^{-4}q^{-1}$

$$\frac{3m}{p^4q}$$

3) $4y^{-1}z^4$

$$\frac{4z^4}{y}$$

4) $3x^{-3}y^0z^{-4}$

$$\frac{3}{x^3z^4}$$

5) $2m^2p^3q^3 \cdot 3pm^4q^0$

$$6m^6p^4q^3$$

6) $2p^4q^2 \cdot pq^3 \cdot 2m^4p^2q^4$

$$4p^7q^9m^4$$

7) $4x^4y^3z^4 \cdot 3y^{-2}$

$$12x^4yz^4$$

8) $3m^3n^2 \cdot 4m^3p^2$

$$12m^6n^2p^2$$

9) $bca^{-2} \cdot ba^3c^{-4}$

$$\frac{b^2a}{c^3}$$

10) $3mp^{-3}q^{-1} \cdot 3m^{-3}p^{-1}q^2$

$$\frac{9q}{p^4m^2}$$

11) $(4x^2y^4z^0)^2$

$$16x^4y^8$$

12) $(4n^4p^0)^3$

$$64n^{12}$$

13) $(3x^{-2}y^{-2}z^3)^{-4}$

$$\frac{x^8y^8}{81z^{12}}$$

14) $(2jh^3k^4)^{-4}$

$$\frac{1}{16j^4h^{12}k^{16}}$$

15) $(2yx^{-3}z^{-1})^0$

$$1$$

16) $(4x^3y^3z^4)^4$

$$256x^{12}y^{12}z^{16}$$

$$17) (2q^4r^{-1} \cdot 2p^4q^0r^3)^3$$

$$64q^{12}p^{12}r^6$$

$$18) (xy^3z^3 \cdot 2zx^3)^4$$

$$16x^{16}y^{12}z^{16}$$

$$19) \frac{14x^4y^{18}}{28x^{20}y^{15}}$$

$$\frac{y^3}{2x^{16}}$$

$$20) \frac{16x^3y^{13}}{2x^{13}y^7}$$

$$\frac{8y^6}{x^{10}}$$

$$21) \frac{26yx^{-30}}{18x^{23}y^{27}}$$

$$\frac{13}{9x^{53}y^{26}}$$

$$22) \frac{15m^{12}n^7}{24n^{24}}$$

$$\frac{5m^{12}}{8n^{17}}$$

$$23) \frac{6x^{14}}{24x^{12}y^0}$$

$$\frac{x^2}{4}$$

$$24) \frac{20a^{-1}b^{18}}{12a^{-14}b^6}$$

$$\frac{5b^{12}a^{13}}{3}$$

$$25) \frac{(x^{-4}y^{-3})^4}{x^{-2}}$$

$$\frac{1}{x^{14}y^{12}}$$

$$26) \left(\frac{2x^2y^{-4}}{2xy^2}\right)^3$$

$$\frac{x^3}{y^{18}}$$

$$27) \frac{2xy^2}{(2x^3y^2)^{-3}}$$

$$16x^{10}y^8$$

$$28) \left(\frac{x^3y^4}{2x^{-3}y^2}\right)^{-1}$$

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

29) You are given a rectangle with base $3x^5y^4$ and height $(5x^3y)^2$. What expression that would represent the area of the rectangle?

$$75x^{11}y^6$$