

Choice You need 12 points of work

Date _____ Period _____

Part A: One point each problem. Simplify. Your answer should contain only positive exponents.

1) $3n^3 \cdot 4n^{-1}$

2) $x^4 x^{-1}$

3) $\frac{v^4}{3v}$

4) $\frac{r^3}{r^2}$

5) $(x^2)^3$

6) $(2m^4)^{-4}$

Part B Two points each problem. Simplify. Your answer should contain only positive exponents.

7) $3x^{-3} y^0 \cdot 3xy^{-3}$

8) $4x^{-2} y^2 \cdot 2yx^4$

$$9) \frac{3x^3y^3}{xy}$$

$$10) \frac{4u^0v^2}{4u^2v^3}$$

$$11) (x^4y^4)^{-1}$$

$$12) (a^3b^2)^2$$

Part C Three points each problem. Simplify. Your answer should contain only positive exponents.

$$13) (xy^{-3})^3 \cdot y^{-3}$$

$$14) \frac{2n^0}{4m^0n^{-1} \cdot 2m^3n^4}$$

$$15) \left(\frac{m^{-2}n^0}{2m^4n^{-3}} \right)^{-4}$$

$$16) \frac{2x^4y^3}{(2x^{-2}y^{-2})^2}$$

Answers to Choice You need 12 points of work

1) $12n^2$

2) x^3

3) $\frac{v^3}{3}$

4) r

5) x^6

6) $\frac{1}{16m^{16}}$

7) $\frac{9}{x^2y^3}$

8) $8y^3x^2$

9) $3x^2y^2$

10) $\frac{1}{u^2v}$

11) $\frac{1}{x^4y^4}$

12) a^6b^4

13) $\frac{x^3}{y^{12}}$

14) $\frac{1}{4m^3n^3}$

15) $\frac{16m^{24}}{n^{12}}$

16) $\frac{x^8y^7}{2}$