

POWER UP

Warm Up Questions

1. $(r^2s^4)^{-3} \times 5r^3s^{-2}$

2. $ab^4 \times 4a^{-3}b^{-4}$

3. $\left(\frac{3m^3 \times 4my^3}{6m^3y^{-3}}\right)^4$

4. $\left(\frac{5^2z^3 \times 5zy^3}{5z^3(y^4)^{-2}}\right)^2$

$$(r^2s^4)^{-3} \times 5r^3s^{-2}$$

$$1r^{-6}s^{-12} \times 5r^3s^{-2}$$

$$5r^{-3}s^{-14}$$

$$= \frac{5}{r^3s^{14}}$$

$$1ab^4 \times 4a^{-3}b^{-4}$$

$$4a^{-2}b^0$$

$$4a^{-2}(1)$$

$$4a^{-2}$$

$$= \frac{4}{a^2}$$

$$\left(\frac{3m^3 \times 4my^3}{6m^3y^{-3}} \right)^4$$

$$4-3=1$$

$$3+3=6$$

$$= \left(\frac{12m^4y^3}{6m^3y^{-3}} \right)^4$$

$$= (2m^1y^6)^4$$

$$= 2^4 m^4 y^{24}$$

$$= 16m^4 y^{24}$$

$$\left(\frac{2m^3p^4 \times 4m^{-2}p^3}{2m^{-2}p^3} \right)^2$$

$$1+2=3$$
$$7-3=4$$

$$\left(\frac{8m^1p^7}{2m^{-2}p^3} \right)^2$$
$$\left(4^1 m^3 p^4 \right)^2$$
$$4^2 m^6 p^8$$
$$= 16m^6p^8$$

$$\left(\frac{7m^{-2}n^1 \times 3m^5n^2}{(m^3n^{-1})^2 \times 3m^4n^2} \right)^3$$

$$\left(\frac{21m^3n^3}{1m^6n^{-2} \times 3m^4n^2} \right)^3$$

$$3-10=-7 \quad \left(\frac{21m^3n^3}{3m^{10}n^0} \right)^3$$

$$3-0=3$$

$$\left(7m^{-7}n^3 \right)^3$$

$$7^3 m^{-21} n^9$$

$$343 m^{-21} n^9$$

$$\frac{343n^9}{m^{21}}$$

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

