HW 40

more practice

1. $125x^{-9} = \boxed{\frac{125}{x^9}}$

2. $\frac{1}{(3x^{-5})^2} = \frac{1}{9x^{-10}} = \boxed{\frac{x^{10}}{9}}$

3. $\frac{4}{x^5}$

4. $\frac{8x}{9}$

5. $\frac{y^7}{3}$

6. $\frac{3}{4m^{13}n^7}$

7. $\frac{4}{5}$

8. $x^5(x^{-4}y^{-2})$

$x^{5-9}y^{-2}$

$\boxed{\frac{1}{x^9y^2}}$

9. $\frac{64b^{22}}{4b^3} = \boxed{16b^{19}}$

10. $(x^{-12}y^8)(x^8y^{20})$

$x^{-4}y^{28}$

$\boxed{\frac{y^{28}}{x^4}}$

11. $\frac{6x^8y^9}{x^{-8}y^5}$

$\boxed{6x^{16}y^4}$

12. $\frac{18a^4b^{11}}{3b^7}$

$\boxed{6a^4b^4}$

13. $w^{10}t^2m$

14. $5(81j^8k^{12}m^{16})$

$\boxed{405j^8k^{12}m^{16}}$

15. $(-9x^{10}y^4)(-8x^9)$

$\boxed{72x^{19}y^4}$

16. $(20v^2p^3)(4v^2p^4)$

$\boxed{80v^4p^7}$

17. $\frac{t^6r^{12}t^{15}r^{10}}{t^6r^9}$

$\boxed{t^{15}r^{13}}$

18. $(2g^5h^{-3})(4g^4h^{-4})$

$8g^9h^{-7}$

$\boxed{\frac{8g^{19}}{h^7}}$

19. $4z\left(\frac{4xz}{2xy^2z^{-1}}\right)^2$

$4z\left(\frac{16x^2z^2}{4x^2y^4z^{-2}}\right)$

$4z\left(\frac{4z^4}{y^4}\right)$

$\boxed{\frac{16z^5}{y^4}}$

20. $\frac{15h^3g^6p^9}{12g^3h^2p^7}$

$\boxed{\frac{5hg^3p^2}{4}}$

21. $(9x^{-6}y^2)(9x^2y^2)\left(\frac{1}{27x^{-6}y^3}\right)$

$\frac{81x^{-4}y^4}{27x^{-6}y^3}$

$\frac{9x^2y}{3} = \boxed{3x^2y}$

22. $\frac{(4x^4y^6)(-27x^{-15}y^{-9})}{9xy^2}$

$\frac{-108x^{-11}y^{-3}}{9xy^2}$

$\boxed{\frac{-12}{x^{12}y^5}}$

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