Alg 2
Ch 7 Half WS (p. 848 1-14, 21-28)

1. $6x^2$ 2. $c^{40}d^{50}$ 3. $3x^3$ 4. -4

5. $-2k$ 6. $\frac{1}{2}w^3$ 7. $m^4n^2\sqrt{m}$ 8. $3y^5$

9. $\sqrt{3x^4}\cdot\sqrt{24x^3}$
$\sqrt{72x^7}$
$\sqrt{36\cdot 2\cdot x^7}$
$6x^3\sqrt{2x}$

10. $\sqrt[3]{4}\cdot\sqrt[3]{18}$
$\sqrt[3]{72}$
$\sqrt[3]{8\cdot 9}$
$2\sqrt[3]{9}$

11. $\sqrt{5a^3}\cdot\sqrt{20a}$
$\sqrt{100a^4}$
$10a^2$

12. $\frac{\sqrt{80}}{\sqrt{5}}$
$\sqrt{80/5}$
$\sqrt{16}=4$

13. $\frac{\sqrt{18x^5y}}{\sqrt{2x}}=\sqrt{\frac{18x^5y}{2x}}=\sqrt{9x^4y}=3x\sqrt{y}$

14. $\sqrt[3]{\frac{640w^3z^8}{5wz^4}}=\sqrt[3]{128w^2z^4}$
$=\sqrt[3]{2^7w^2z^4}$
$=4z\sqrt[3]{2w^2z}$

21. $(x^{-4/3}y^{3/5})^{15/1}=x^{-\frac{60}{3}}y^{45/5}=x^{-20}y^9=\frac{y^9}{x^{20}}$

22. $(x^{1/4}y^{-3/8})^{16/1}=x^{16/4}y^{-48/8}=x^4y^{-6}=x^4/y^6$

23. $(8^1x^{15}y^{-9})^{-1/3}=8^{-1/3}x^{-15/3}y^{9/3}=8^{-1/3}x^{-5}y^3=\frac{y^3}{\sqrt[3]{8}\,x^5}=\frac{y^3}{2x^5}$

24. $(-27x^{-9}y^6)^{1/3}=(-27)^{1/3}x^{-9/3}y^{6/3}=\sqrt[3]{-27}\,x^{-3}y^2=-3y^2/x^3$

25. $(-32x^{-10}y^{15})^{1/5}=(-32)^{1/5}x^{-10/5}y^{15/5}=\sqrt[5]{-32}\,x^{-2}y^3=-2y^3/x^2$

26. $(32x^{20}y^{-10})^{-1/5}=32^{-1/5}x^{-20/5}y^{-10/5}=32^{-1/5}x^{-4}y^2=\frac{y^2}{\sqrt[5]{32}\,x^4}=\frac{y^2}{2x^4}$

27. $\sqrt[4]{\frac{81y^{16}}{16y^{12}}}=\sqrt[4]{\frac{3^4y^{16}}{2^4y^{12}}}=\frac{3y^4}{2y^3}$

28. $\sqrt{\frac{16x^{14}}{81y^{18}}}=\frac{4x^7}{9y^9}$