Math 151 Sec F0501/F0502
Extra Algebra Review Problems II

1. Simplify $(3a^3b^4)^5(2ab^3c^7)^3$.

ans: $1944a^{18}b^{29}c^{21}$

2. Simplify $(u^{-4}v^{3/5})^{5/12}$.

ans: $u^{-5/3}v^{1/4}$

3. Simplify $(u^{-4}v^{3/5})^{5/12}$.

ans: $u^{-5/3}v^{1/4}$

4. Simplify $\dfrac{(u^{5/3}v^{1/4})^3}{(u^{2/3})^4}$.

ans: $u^{7/3}v^{3/4}$

5. Simplify $5[9x-(3x+2/5)]$.

ans: $30x-2$

6. Expand $(2\sqrt{x}-\sqrt{2})(2\sqrt{x}+\sqrt{2})$.

ans: $4x-2$

7. Simplify $\left(\dfrac{2}{3}\right)\left[\left(\dfrac{3}{2}\right)u(u-v)-3v(u+v)\right]$.

ans: $u^2-3uv-2v^2$

8. Expand $(\sqrt{u^2+v^2}-u)(\sqrt{u^2+v^2}+u)$.

ans: v^2

9. Simplify and write as a single fraction $\dfrac{1+1/x}{2-1/y}$.

ans: $\frac{y(x+1)}{x(2y-1)}$

10. Simplify and write as a single fraction with positive exponents $\dfrac{(1/x+3)^{-1}}{x}$.

ans: $\frac{1}{3x+1}$