Summer Session, Worksheet for Lesson 3

INSTRUCTIONS FOR ALL **FIVE** PROBLEMS:
Simplify the expressions so that no negative exponents appear in the final result. Assume that all variables represent positive real numbers.

1) $\dfrac{(5pw)w^6}{30p^3w^8}$

2) $\dfrac{8a^2\left(a^{-3}\right)^6}{\left(a^{-2}\right)^{-1}}$

3) $\dfrac{(3p)^3\,p^2}{p^{-1}p^{-5}}\left(3p^{-4}\right)^{-2}$

4) $\left(\dfrac{5k^{-4}}{k^5} \right)^{-1} \cdot \dfrac{2}{k}$

5) $\left(\dfrac{2p}{q^2} \right)^3 \left(\dfrac{3p^6}{q^{-6}} \right)^{-1}$