Exponent laws

① $a^x a^y = a^{x+y}$ ② $\frac{a^x}{a^y} = a^{x-y}$ ③ $(a^x)^y = a^{xy}$

④ $(ab)^x = a^x b^x$ ⑤ $\left(\frac{a}{b}\right)^x = \frac{a^x}{b^x}$

eg: $\frac{(w^2 \cdot v^5)^3}{(w^{18} v^4)^{1/2}} \overset{④}{=} \frac{(w^2)^3 \cdot (v^5)^3}{(w^{18})^{1/2}(v^4)^{1/2}} \overset{③}{=} \frac{w^6 \cdot v^{15}}{w^9 v^2} \overset{②}{=} w^{6-9} \cdot v^{15-2}$

$= w^{-3} \cdot v^{13}$

$\boxed{\frac{v^{13}}{w^3}}$

eg $\frac{(2^6 \cdot 3^2)^{1/2}}{6^2} \overset{④}{=} \frac{2^3 \cdot 3^1}{(2 \cdot 3)^2} \overset{④}{=} \frac{2^3}{2^2} \cdot \frac{3}{3^2} = 2^{3-2} \cdot 3^{1-2} = 2 \cdot 3^{-1}$

or $\boxed{\frac{2}{3}}$