

Name _____

Exponents (Power of a power)

By Using the law Power of a power,
write each expression in a single exponent. $(x^m)^n = x^{mn}$

1) $(4^5)^2$ <u> 4^{10} </u>	2) $(10^3)^4$ <u> 10^{12} </u>	3) $(-3^6)^3$ <u> $(-3)^{18}$ </u>
4) $(-2^5)^{-2}$ <u> $(-2)^{-10}$ </u>	5) $(4.5^{-3})^3$ <u> $(4.5)^{-9}$ </u>	6) $(4^{-3})^{-4}$ <u> 4^{12} </u>
7) $\left(\left(\frac{2}{3}\right)^2\right)^4$ <u> $\left(\frac{2}{3}\right)^8$ </u>	8) $\left(\left(\frac{5}{7}\right)^5\right)^2$ <u> $\left(\frac{5}{7}\right)^{10}$ </u>	9) $\left(\left(\frac{-1}{7}\right)^{-3}\right)^2$ <u> $\left(\frac{-1}{7}\right)^{-6}$ </u>
10) $\left(\left(\frac{11}{16}\right)^{-4}\right)^{-3}$ <u> $\left(\frac{11}{16}\right)^{12}$ </u>	11) $\left(\left(\frac{15}{19}\right)^5\right)^{-3}$ <u> $\left(\frac{15}{19}\right)^{-15}$ </u>	12) $\left(\left(\frac{-5}{13}\right)^{-2}\right)^{-4}$ <u> $\left(\frac{-5}{13}\right)^8$ </u>