Name _____

Exponents (Product of powers)

By Using the law Product of powers,
write each expression in a single exponent. ($x^m \cdot x^n = x^{m+n}$)

1) $x^7 \cdot x^5$ x^{12}	2) $z^{10} \cdot z^5$ z^{15}	3) $a^{-5} \cdot a^7$ a^2
4) $c^{-4} \cdot c^{-7}$ c^{-11}	5) $(-w)^4 \cdot (-w)^7$ $(-w)^{11}$	6) $(xy)^3 \cdot (xy)^4$ $(xy)^7$
7) $\left(\frac{1}{a}\right)^5 \cdot \left(\frac{1}{a}\right)^4$ $\left(\frac{1}{a}\right)^9$	8) $\left(\frac{a}{b}\right)^8 \cdot \left(\frac{a}{b}\right)^{-3}$ $\left(\frac{a}{b}\right)^5$	9) $\left(\frac{-1}{c}\right)^{-3} \cdot \left(\frac{-1}{c}\right)^{-5}$ $\left(\frac{-1}{c}\right)^{-8}$
10) $\left(\frac{d}{10}\right)^7 \cdot \left(\frac{d}{10}\right)^{-5}$ $\left(\frac{d}{10}\right)^2$	11) $\left(\frac{-1}{x}\right)^{-7} \cdot \left(\frac{-1}{x}\right)^4$ $\left(\frac{-1}{x}\right)^{-3}$	12) $\left(\frac{x}{y}\right)^{-5} \cdot \left(\frac{x}{y}\right)^{-4}$ $\left(\frac{x}{y}\right)^{-9}$

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