Name _____

Reciprocal and Inverse of exponents

Find the reciprocal of exponents
and simplify the expression.

1) $4^3 \times 4^{-7}$ $4^{-4} = \frac{1}{4^4} = \frac{1}{256}$	2) $2^{-7} \times 2^5 \times 2^{-3}$ $2^{-5} = \frac{1}{2^5} = \frac{1}{32}$
3) $3^{-2} \div 3^{-1}$ $3^{-3} = \frac{1}{3^3} = \frac{1}{27}$	4) $5^{-4} \times 5^4 \times 5^{-7} \times 5^5$ $5^{-2} = \frac{1}{5^2} = \frac{1}{25}$
5) $2^{-4} \div 2^7 \div 2^3 \div 2^{-4}$ $2^{-10} = \frac{1}{2^{10}} = \frac{1}{1024}$	6) $3^{-3} \times 3^3 \times 3^{-2}$ $3^{-2} = \frac{1}{3^2} = \frac{1}{9}$
7) $5^{-5} \times 5^{-3} \div 5^4$ $5^{-4} = \frac{1}{5^4} = \frac{1}{625}$	8) $7^{-4} \div 7^{-3} \times 7^{-2}$ $7^{-3} = \frac{1}{7^3} = \frac{1}{343}$
9) $2^{-5} \div 2^{-2} \div 2^{-7} \times 2^{-8}$ $2^{-4} = \frac{1}{2^4} = \frac{1}{16}$	10) $4^3 \div 4^{-5} \times 4^{-7} \div 4^6$ $4^{-5} = \frac{1}{4^5} = \frac{1}{1024}$