Exponents Product Rule

Name: _____ Score: _____

Use the product rule and answer in a single exponent.

$12^{14} \times 12^{2} =$	$8^{5} \times 8^{3} =$	$13^{3} \times 13^{3} =$
$5^{8} \times 5^{1} =$	$3^{8} \times 3^{3} =$	$8^{15} \times 8^{3} =$
$6^{3} \times 6^{2} =$	$2^{7} \times 2^{2} =$	$16^{9} \times 16^{3} =$
$4^{5} \times 4^{6} =$	$10^{6} \times 10^{8} =$	$1^{1} \times 1^{5} =$
$14^{3} \times 14^{2} =$	$30^{20} \times 30^{5} =$	$3^{9} \times 3^{5} =$
$7^{11} \times 7^{8} =$	$5^{7} \times 5^{3} =$	$8^{14} \times 8^{9} =$
$11^{20} \times 11^{12} =$	$7^{11} \times 7^{2} =$	$19^{4} \times 19^{3} =$

Answers

Use the product rule and answer in a single exponents.

$12^{14} \times 12^{2} = 12^{16}$ $8^{5} \times 8^{3} = 8^{8}$ $13^{3} \times 13^{3} = 13^{6}$

$5^{8} \times 5^{1} = 5^{9}$ $3^{8} \times 3^{3} = 3^{11}$ $8^{15} \times 8^{3} = 8^{18}$

$6^{3} \times 6^{2} = 6^{5}$ $2^{7} \times 2^{2} = 2^{9}$ $16^{9} \times 16^{3} = 16^{12}$

$4^{5} \times 4^{6} = 4^{11}$ $10^{6} \times 10^{8} = 10^{14}$ $1^{1} \times 1^{5} = 1^{6}$

$14^{3} \times 14^{2} = 14^{5}$ $30^{20} \times 30^{5} = 30^{25}$ $3^{9} \times 3^{5} = 3^{14}$

$7^{11} \times 7^{8} = 7^{19}$ $5^{7} \times 5^{3} = 5^{10}$ $8^{14} \times 8^{9} = 8^{23}$

$11^{20} \times 11^{12} = 11^{32}$ $7^{11} \times 7^{2} = 7^{13}$ $19^{4} \times 19^{3} = 19^{7}$