Name : _____ Score : _____

Teacher : _____ Date : _____

Exponents and Multiplication

Simplify. Your answer should contain only positive exponents.

1) $w^{5} \cdot w^{2} \cdot w^{3}$

2) $r \cdot r^{-6}$

3) $2d \cdot 5d^{-5}$

4) $\left(\frac{8}{9}\right)^{2} \cdot \left(\frac{8}{9}\right)^{3}$

5) $3kb^{-6} \cdot 2k^{-3}b^{3}$

6) $2h^{3} \cdot 3h^{2} \cdot 8h^{6}$

7) $5g^{3}z^{-6} \cdot 9g^{-3}z^{4}$

8) $\left(\frac{1}{s}\right)^{5} \cdot \left(\frac{1}{s}\right)^{3} \cdot \left(\frac{1}{s}\right)^{6}$

9) $7d^{2} \cdot 8d^{-4}y^{6}$

10) $w \cdot w^{6}$

11) $\left(\frac{1}{5}\right)^{2} \cdot \left(\frac{1}{5}\right)^{6}$

12) $2 \cdot 2^{-4}$

13) $5y^{6} \cdot 2y^{-5}$

14) $3h^{3}n^{6} \cdot 6hn^{2}$

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Exponents and Multiplication

Simplify. Your answer should contain only positive exponents.

1) $w^{5} \cdot w^{2} \cdot w^{3}$

w^{10}

2) $r \cdot r^{-6}$

$\frac{1}{r^{5}}$

3) $2d \cdot 5d^{-5}$

$\frac{10}{d^{4}}$

4) $\left(\frac{8}{9}\right)^{2} \cdot \left(\frac{8}{9}\right)^{3}$

$\left(\frac{8}{9}\right)^{5}$

5) $3kb^{-6} \cdot 2k^{-3}b^{3}$

$\frac{6}{k^{2}b^{3}}$

6) $2h^{3} \cdot 3h^{2} \cdot 8h^{6}$

$48h^{11}$

7) $5g^{3}z^{-6} \cdot 9g^{-3}z^{4}$

$\frac{45}{z^{2}}$

8) $\left(\frac{1}{s}\right)^{5} \cdot \left(\frac{1}{s}\right)^{3} \cdot \left(\frac{1}{s}\right)^{6}$

$\left(\frac{1}{s}\right)^{14}$

9) $7d^{2} \cdot 8d^{-4}y^{6}$

$\frac{56y^{6}}{d^{2}}$

10) $w \cdot w^{6}$

w^{7}

11) $\left(\frac{1}{5}\right)^{2} \cdot \left(\frac{1}{5}\right)^{6}$

$\left(\frac{1}{5}\right)^{8}$

12) $2 \cdot 2^{-4}$

$\frac{1}{2^{3}}$

13) $5y^{6} \cdot 2y^{-5}$

$10\ y$

14) $3h^{3}n^{6} \cdot 6hn^{2}$

$18h^{4}n^{8}$