## Laws of Indices

Simplify the following:

1) 
$$(t^9)^6 =$$

2) 
$$(a^2)^5 =$$

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 3)  $(b^5)^{16} =$ 

4) 
$$(8^4)^5 =$$

5) 
$$(p^4 q^3)^9 =$$

6) 
$$\left(\frac{3x^5}{5y^3}\right)^2 =$$
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7) 
$$(\frac{2m^3}{3n^2})^3 =$$
 \_\_\_\_\_

8) 
$$(6^5)^{12}$$
 =

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$$(6^5)^{12} =$$
 9)  $(a^6b^4c^5)^8 =$ 

Determine the value of the following:

Review

1) 
$$9r^5 \times 5r^3 =$$

2) 
$$24q^7 \div 3q^3 =$$

2) 
$$3p \times 2p^3 \times 5 =$$

4) 
$$\frac{18a^6}{3b^2}$$
 =

5) 
$$\frac{9}{10}$$
 a<sup>3</sup> x  $\frac{2}{3}$  a

6) 
$$6w \times \frac{1}{2} w^3$$