M9 - 3.2 - Multiply Exponent Laws HW

Write each product as a repeated multiplication then as a single exponent (power).

$(3^3)^2 = (3 \times 3 \times 3)^2 = (3 \times 3 \times 3) \times (3 \times 3 \times 3) = 3^6$

$(5^2)^3 =$

$(7^3)^2 =$

Write the following as a single power (exponent). Show your work.

$(4^3)^2 = 4^{3 \times 2} = 4^6$

$(2^2)^3 =$

$(5^2)^2 =$

$(8^2)^5 =$

$(7^3)^4 =$

$(9^5)^2 =$

Write as a multiplication of two powers.

$[7 \times 2]^2 =$
$7^2 2^2$

$[3 \times 2]^2 =$

$[5 \times 3]^2 =$

$(6 \times 7)^3 =$

Write the following as a single power.

$(7 \times 2)^2 =$
14^2

$[3 \times 2]^2 =$

$[5 \times 3]^2 =$

$(6 \times 7)^3 =$

Write as a division of two powers.

$\left(\dfrac{3}{5}\right)^3 =$

$\left(\dfrac{5}{7}\right)^2 =$

$\left(\dfrac{9}{4}\right)^2 =$

$\left(\dfrac{1}{2}\right)^2 =$

Multiply the exponents.

$[7x]^2 = 7^2 x^2$

$[3x]^2 =$

$[5x^3]^2 =$

$2[3x^4]^2 =$