

RSCS
Class: _____

Name: _____
Date: _____

PRODUCT RULE HOMEWORK

Simplify the expression. Write your answer as a power.

1. $2^3 \bullet 2^2$

2. $9^6 \bullet 9^8$

3. $(-7)^3 \bullet (-7)^5$

4. $\left(\frac{5}{8}\right)^{10} \bullet \left(\frac{5}{8}\right)^2$

5. $c \bullet c^5$

6. $q^4 \bullet q^4$

SIMPLIFY EACH PRODUCT:

13) $10^{12} \bullet 10^{35} =$

14) $a^7 \bullet a^{12} =$

15) $c^3 \bullet c^8 =$

16) $d^7 \bullet d^9 =$

17) $x^{2e} \bullet x^{8e} =$

18) $w^{103} \bullet w^{1030} =$

19) $a^6 \bullet b^5 =$

20) $10^a \bullet 10^b =$

Michael has 5^2 boxes. There are 5^1 kg of apples in each box. When empty, a box weighs 5^{-2} kg.

Part A

What is the total weight of Michael's boxes, when empty? **Show your work.**

Answer _____

Part B

How many kilograms of apples does Michael have in all? **Show your work.**