

Powers with the Same Base

NAME _____ Hr _____

1

Rewrite using each base only once.

$$6^2 \cdot 6^3$$

2

$$(-4) \cdot (-4)^7$$

3

$$m^{-3} \cdot m^2 \cdot m^5$$

4

$$x^0 \cdot x$$

5

Simplify.

$$x^2 y \cdot xy^2$$

6

$$5x^2 \cdot x^6 \cdot x^3$$

7

$$4y^5 \cdot 3y^2$$

8

$$-2a^2 \cdot -4a^3$$

9

$$7b^{-5} \cdot b^2$$

10

$$k^5 \cdot 3k^{-8} \cdot k$$

11

Fill in the missing exponent.

$$d^5 \bullet d^{(\quad)} = d^{-7}$$

12

$$x^{11} \cdot x^{(\quad)} \cdot x^{-6} = x^7$$

13

$$4y^5 \cdot 3y^{(\quad)} = 12y^9$$

14

$$y^{(\quad)} \cdot y^3 = y^3$$

15

REVIEW – Zero and Negative Exponents
Simplify.

$$y^0$$

16

$$f^{-3}$$

17

$$3x^{-2}$$

18

$$\frac{x^0}{y^{-4}}$$

19

$$\frac{5x^{-2}}{3y^{-4}}$$

20

$$(3x)^{-2}$$