

# Exponents Rules

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Rewrite each expression using product rule.

1)  $67^5 \times 67^{-18} =$  \_\_\_\_\_

2)  $34^{-43} \times 34^3 =$  \_\_\_\_\_

3)  $89^{12} \times 89^{24} =$  \_\_\_\_\_

4)  $73^{-8} \times 73^{-2} =$  \_\_\_\_\_

5)  $19^{-98} \times 19^{16} =$  \_\_\_\_\_

6)  $58^4 \times 58^{63} =$  \_\_\_\_\_

Rewrite each expression using quotient rule.

1)  $22^{-58} \div 22^{-40} =$  \_\_\_\_\_

2)  $98^3 \div 98^{-3} =$  \_\_\_\_\_

3)  $75^{-98} \div 75^1 =$  \_\_\_\_\_

4)  $37^{52} \div 37^{-30} =$  \_\_\_\_\_

5)  $43^{32} \div 43^{-12} =$  \_\_\_\_\_

6)  $81^{33} \div 81^{84} =$  \_\_\_\_\_

Rewrite each expression using power rule.

1)  $(14^5)^2 =$  \_\_\_\_\_

2)  $(86^8)^9 =$  \_\_\_\_\_

3)  $(28^{15})^4 =$  \_\_\_\_\_

4)  $(35^9)^5 =$  \_\_\_\_\_

5)  $(93^4)^6 =$  \_\_\_\_\_

6)  $(76^7)^8 =$  \_\_\_\_\_

# Exponents Rules

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Rewrite each expression using product rule.

$$1) 67^5 \times 67^{-18} = \frac{1}{67^{13}}$$

$$2) 34^{-43} \times 34^3 = \frac{1}{34^{40}}$$

$$3) 89^{12} \times 89^{24} = 89^{36}$$

$$4) 73^{-8} \times 73^{-2} = \frac{1}{73^{10}}$$

$$5) 19^{-98} \times 19^{16} = \frac{1}{19^{82}}$$

$$6) 58^4 \times 58^{63} = 58^{67}$$

Rewrite each expression using quotient rule.

$$1) 22^{-58} \div 22^{-40} = \frac{1}{22^{18}}$$

$$2) 98^3 \div 98^{-3} = 98^6$$

$$3) 75^{-98} \div 75^1 = \frac{1}{75^{99}}$$

$$4) 37^{52} \div 37^{-30} = 37^{82}$$

$$5) 43^{32} \div 43^{-12} = 43^{44}$$

$$6) 81^{33} \div 81^{84} = \frac{1}{81^{51}}$$

Rewrite each expression using power rule.

$$1) (14^5)^2 = 14^{10}$$

$$2) (86^8)^9 = 86^{72}$$

$$3) (28^{15})^4 = 28^{60}$$

$$4) (35^9)^5 = 35^{45}$$

$$5) (93^4)^6 = 93^{24}$$

$$6) (76^7)^8 = 76^{56}$$