

Exponents Rules

Name: _____

Date: _____

Rewrite each expression using product rule.

1) $25^{15} \times 25^{-22} =$ _____

2) $49^{-13} \times 49^{26} =$ _____

3) $31^{20} \times 31^6 =$ _____

4) $26^{-23} \times 26^{-14} =$ _____

5) $23^{-12} \times 23^{30} =$ _____

6) $34^3 \times 34^{-16} =$ _____

Rewrite each expression using quotient rule.

1) $24^{-17} \div 24^{-24} =$ _____

2) $36^{30} \div 36^{-5} =$ _____

3) $43^{-15} \div 43^4 =$ _____

4) $27^{26} \div 27^9 =$ _____

5) $39^{21} \div 39^{-20} =$ _____

6) $48^{-8} \div 48^{-17} =$ _____

Rewrite each expression using power rule.

1) $(37^{25})^2 =$ _____

2) $(29^{17})^4 =$ _____

3) $(28^{15})^3 =$ _____

4) $(46^1)^{27} =$ _____

5) $(42^5)^{12} =$ _____

6) $(33^7)^{12} =$ _____

Exponents Rules

Name: _____

Date: _____

Rewrite each expression using product rule.

$$1) 25^{15} \times 25^{-22} = \frac{1}{25^7}$$

$$2) 49^{-13} \times 49^{26} = 49^{13}$$

$$3) 31^{20} \times 31^6 = 31^{26}$$

$$4) 26^{-23} \times 26^{-14} = \frac{1}{26^{37}}$$

$$5) 23^{-12} \times 23^{30} = 23^{18}$$

$$6) 34^3 \times 34^{-16} = \frac{1}{34^{13}}$$

Rewrite each expression using quotient rule.

$$1) 24^{-17} \div 24^{-24} = 24^7$$

$$2) 36^{30} \div 36^{-5} = 36^{35}$$

$$3) 43^{-15} \div 43^4 = \frac{1}{43^{19}}$$

$$4) 27^{26} \div 27^9 = 27^{17}$$

$$5) 39^{21} \div 39^{-20} = 39^{41}$$

$$6) 48^{-8} \div 48^{-17} = 48^9$$

Rewrite each expression using power rule.

$$1) (37^{25})^2 = 37^{50}$$

$$2) (29^{17})^4 = 29^{68}$$

$$3) (28^{15})^3 = 28^{45}$$

$$4) (46^1)^{27} = 46^{27}$$

$$5) (42^5)^{12} = 42^{60}$$

$$6) (33^7)^{12} = 33^{84}$$