

Exponents Rules

Name: _____

Date: _____

Rewrite each expression using product rule.

1) $46^{75} \times 46^{-12} =$ _____

2) $39^{-98} \times 39^{31} =$ _____

3) $32^{83} \times 32^{16} =$ _____

4) $58^{-28} \times 58^{-49} =$ _____

5) $28^{14} \times 28^{-62} =$ _____

6) $61^{55} \times 61^{-2} =$ _____

Rewrite each expression using quotient rule.

1) $72^{45} \div 72^{-39} =$ _____

2) $45^{41} \div 45^{-36} =$ _____

3) $61^{-12} \div 61^{-99} =$ _____

4) $93^{68} \div 93^6 =$ _____

5) $57^{88} \div 57^{-11} =$ _____

6) $84^{-71} \div 84^{-12} =$ _____

Rewrite each expression using power rule.

1) $(98^6)^9 =$ _____

2) $(77^8)^{-8} =$ _____

3) $(64^{-5})^{18} =$ _____

4) $(86^9)^{10} =$ _____

5) $(27^9)^{-7} =$ _____

6) $(53^{-4})^{-19} =$ _____

Exponents Rules

Name: _____

Date: _____

Rewrite each expression using product rule.

- 1) $46^{75} \times 46^{-12} = \underline{46^{63}}$
- 2) $39^{-98} \times 39^{31} = \underline{\frac{1}{39^{67}}}$
- 3) $32^{83} \times 32^{16} = \underline{32^{99}}$
- 4) $58^{-28} \times 58^{-49} = \underline{\frac{1}{58^{77}}}$
- 5) $28^{14} \times 28^{-62} = \underline{\frac{1}{28^{48}}}$
- 6) $61^{55} \times 61^{-2} = \underline{61^{53}}$

Rewrite each expression using quotient rule.

- 1) $72^{45} \div 72^{-39} = \underline{72^{84}}$
- 2) $45^{41} \div 45^{-36} = \underline{45^{77}}$
- 3) $61^{-12} \div 61^{-99} = \underline{61^{87}}$
- 4) $93^{68} \div 93^6 = \underline{93^{62}}$
- 5) $57^{88} \div 57^{-11} = \underline{57^{99}}$
- 6) $84^{-71} \div 84^{-12} = \underline{\frac{1}{84^{59}}}$

Rewrite each expression using power rule.

- 1) $(98^6)^9 = \underline{98^{54}}$
- 2) $(77^8)^{-8} = \underline{\frac{1}{77^{64}}}$
- 3) $(64^{-5})^{18} = \underline{\frac{1}{64^{90}}}$
- 4) $(86^9)^{10} = \underline{86^{90}}$
- 5) $(27^9)^{-7} = \underline{\frac{1}{27^{63}}}$
- 6) $(53^{-4})^{-19} = \underline{53^{76}}$