

Name: _____

Score: _____

Exponential Rules

Pre-algebra: M1

Use laws of exponents to rewrite each expression as single positive exponent:

1) $\frac{18^4 \times 18^5}{18^6}$	2) $((-9)^3)^4 \times (-9)^6$	3) $(11^{-4})^3 \div (11^6)^{-5}$
4) $((-7)^4)^8 \div (-7)^5$	<div style="border: 2px solid #007bff; padding: 10px;"> <h1 style="margin: 0;">PREVIEW</h1> <p style="margin: 5px 0;">Access the largest collection of worksheets for just \$19.95 per year!</p> <div style="display: flex; justify-content: space-around; margin: 10px 0;"> <div style="background-color: #007bff; color: white; padding: 10px; width: 45%; text-align: center;"> <p>Members, please log in to download this worksheet.</p> <p style="background-color: white; color: #007bff; padding: 2px 5px; border-radius: 10px; display: inline-block;">Log in</p> </div> <div style="background-color: #007bff; color: white; padding: 10px; width: 45%; text-align: center;"> <p>Not a member? Please sign up to gain complete access.</p> <p style="background-color: white; color: #007bff; padding: 2px 5px; border-radius: 10px; display: inline-block;">Sign up</p> </div> </div> <p style="margin: 0; color: #007bff;">www.mathworksheets4kids.com</p> </div>	
7) $(8^5)^7 \div 8^9$	5) $(13^2)^6 \times (-13)^{-7}$	6) $\frac{\times 20^8}{0^{-9}}$
10) $(3^8)^3 \times 3^5 \times 3^{-4}$	8) $10^{-9} \div (6^7)^{-8}$	9) $(-2)^{-3} \times (-2)^{-4}$
13) $\frac{(-5)^2}{(-5)^{-6} \times (-5)^4}$	14) $6^7 \times (6^5)^3 \times 6^{-9}$	15) $(-5)^7 \div ((-5)^4)^{-4}$

Name: _____

Answer key

Score: _____

Exponential Rules

Pre-algebra: M1

1) $\frac{18^4 \times 18^5}{18^6}$ = 18³	2) $((-9)^3)^4 \times (-9)^6$ = (-9)¹⁸	3) $(11^{-4})^3 \div (11^6)^{-5}$ = 11¹⁸
4) $((-7)^4)^8 \div (-7)^5$ = (-7)²³	5) $13^7 \times 13^8$ = 13¹⁵	6) $(3^2)^6 \times (-13)^{-7}$ = 3¹² × (-13)⁻⁷
7) $(8^5)^7 \div 8^9$ = 8²⁶	8) $10^3 \times 10^8$ = 10¹¹	9) $10^{-9} \times 10^8$ = 10⁻¹
10) $(3^8)^3 \times 3^5 \times 3^{-4}$ = 3²⁵	11) $10^{-9} \div (6^7)^{-8}$ = 10⁻⁹ × 6⁵⁶	12) $10^{-9} \div (6^7)^{-8}$ = 10⁻⁹ × 6⁵⁶
13) $\frac{(-5)^2}{(-5)^{-6} \times (-5)^4}$ = (-5)⁴	14) $6^7 \times (6^5)^3 \times 6^{-9}$ = 6¹³	15) $(-5)^7 \div ((-5)^4)^{-4}$ = (-5)²³

PREVIEW

Access the largest collection of worksheets for just **\$19.95** per year!

Members, please log in to download this worksheet.

Log in

Not a member? Please sign up to gain complete access.

Sign up

www.mathworksheets4kids.com