Name: .....

MATH MONKS

Exponents-Practice Worksheet

Simplify

1. $(-2)^6 \div (-2)^5 - (-2)^5 \div (-2)^3$

2. $(-5)^8 \div (-5)^4 \times (-5)^3$

3. $\{(-3)^0 \times (-3)^3\}^3$

4. $3^3 \div 9(3^0 - 2^2)$

5. $(4^2 \times 4^3)^0 - (3^2)^2$

6. $\{(-3)^4 - (-2)^3\}^0$

7. $\left(-\frac{7}{9}\right)^9 . \left(\frac{7}{9}\right)^3$

8. $(-14)^0 . (-14)^{-19}$

Find the value of x

9. $11^{-x} . 11^6 = 11^{16}$

10. $10^x . 10^{-9} = 10^{11}$

11. $\frac{x^{-1}}{(-19)^{-2}} = -19$

12. $\left(-\frac{4}{5}\right)^{18} \div \left(-\frac{4}{5}\right)^{-x} = \left(-\frac{4}{5}\right)^{14}$

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Exponents-Practice Worksheet

Answers

1 $(-2)^6 \div (-2)^5 - (-2)^5 \div (-2)^3$

-6

2 $(-5)^8 \div (-5)^4 \times (-5)^3$

-5

3 $\{(-3)^0 \times (-3)^3\}^3$

-19683

4 $3^3 \div 9(3^0 - 2^2)$

-9

5 $(4^2 \times 4^3)^0 - (3^2)^2$

-80

6 $\{(-3)^4 - (-2)^3\}^0$

1

7 $\left(-\frac{7}{9}\right)^9 . \left(\frac{7}{9}\right)^3$

$\frac{16807}{59049}$

8 $(-14)^0 . (-14)^{-19}$

$-\frac{1}{14^{19}}$

9 $11^{-x} . 11^6 = 11^{16}$

$x = -10$

10 $10^x . 10^{-9} = 10^{11}$

11 $\frac{x^{-1}}{(-19)^{-2}} = -19$

$x = -19$

12 $\left(-\frac{4}{5}\right)^{18} \div \left(-\frac{4}{5}\right)^{-x} = \left(-\frac{4}{5}\right)^{14}$

$x = -4$