

Test Outline

Unit 2: Powers and the Exponent Laws



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Study Guide

Powers

- Base
- Exponent
- Repeated Multiplication
- The Zero Exponent
- Powers of ten
- Expanded form to Standard form and vice versa

Order of Operations

BEDMAS

Exponent Laws

- Product of Powers
- Quotient of Powers
- Power of a Power
- Power of a Product
- Power of a Quotient

Handwritten notes and calculations:

$$(3 \times 10^5) + (6 \times 10^4) = \frac{367512}{10}$$

$$100000 \quad 00000 \quad 00000$$

$$\left(\frac{2^3}{2^2} \right)^2 = 2^1 = 2$$

$$(2^3)^2 = 2^6 = 64$$

$$(2^2 \times 2^3)^2 = 2^4 \times 2^6 = 2^{10}$$

$$\left(\frac{4^2}{3} \right)^2 = \frac{4^4}{3^2} = \frac{256}{9}$$

$$\boxed{2^2 \times 2^3} = 2^5 = 32$$

Class/Homework

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Complete the following review questions:



- | | | |
|-------|--------|--------|
| 1ad, | 13 ad, | 23 bd, |
| 3abc, | 14, | 24, |
| 7a, | 17, | 26, |
| 8abc, | 18 bc, | 27, |
| 9, | 19, | |
| 12, | 20 ac, | |

Practice
Test
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If you finish this there is a simplifying worksheet that you can work on:

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

$$(-3)^3$$

$$-27$$

OR

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

$$\frac{9^3}{(-3)^3}$$

$$\frac{729}{-27} = -27$$