Quiz: Exponentiations

Section: Exponential Numbers with Integer Exponent

Sub-section: Exponential Numbers with Integer Exponent

Choose the correct answer.

1. What is the base and the power of 5^6?

   (Understand, MA 1.1 G.8/1)

   A. base: 5, power: 5

   B. base: 5, power: 6

   C. base: 6, power: 5

   D. base: 6, power: 6

   Soluiton base: 5, power: 6

   base: 5, power: 6

2. What is the base and the power of 11^2?

   (Understand, MA 1.1 G.8/1)

   A. base: 2, power: 2

   B. base: 2, power: 11

   C. base: 11, power: 2

   D. base: 11, power: 11

   Solution base: 11, power: 2

   base: 11, power: 2

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3. Which of the following expressions is true?
   (Understand, MA 1.1 G.8/1)

   A. $(-4)^5 = 4 \times 4 \times 4 \times 4 \times 4$

   B. $3^2 = 2 \times 2 \times 2$

   C. $\left(-\frac{1}{10}\right)^4 = -\frac{1}{10} \times \frac{1}{10} \times \frac{1}{10} \times \frac{1}{10}$

   D. $8^6 = 8 \times 8 \times 8 \times 8 \times 8 \times 8$

   Solution $8^6 = 8 \times 8 \times 8 \times 8 \times 8 \times 8$

   $(-4)^5 = (-4) \times (-4) \times (-4) \times (-4) \times (-4)$

   $3^2 = 3 \times 3$

   $\left(-\frac{1}{10}\right)^4 = \left(-\frac{1}{10}\right) \times \left(-\frac{1}{10}\right) \times \left(-\frac{1}{10}\right) \times \left(-\frac{1}{10}\right)$

4. Which of the following expressions is true?
   (Understand, MA 1.1 G.8/1)

   A. $\left(-\frac{6}{9}\right)^6 = \left(-\frac{6}{9}\right) \times \left(-\frac{6}{9}\right) \times \left(-\frac{6}{9}\right) \times \left(-\frac{6}{9}\right) \times \left(-\frac{6}{9}\right)$

   B. $4^4 = 4 \times 4 \times 4 \times 4$

   C. $12^{-3} = (-12) \times (-12) \times (-12)$

   D. $5^3 = 3 \times 3 \times 3 \times 3 \times 3$

   Solution $4^4 = 4 \times 4 \times 4 \times 4$

   $\left(-\frac{6}{9}\right)^6 = \left(-\frac{6}{9}\right) \times \left(-\frac{6}{9}\right) \times \left(-\frac{6}{9}\right) \times \left(-\frac{6}{9}\right) \times \left(-\frac{6}{9}\right) \times \left(-\frac{6}{9}\right)$

   $(-12)^3 = (-12) \times (-12) \times (-12)$

   $5^3 = 5 \times 5 \times 5$

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5. Which of the following is a product of powers of positive prime factors of 2025? (Understand, MA 1.1 G.8/1)

   A. $3^4 \times 5$

   B. $3^4 \times 5^2$

   C. $3^5 \times 5$

   D. $3^5 \times 5^2$

   Solution $3^4 \times 5^2$

   $2025 = 3^4 \times 5^2$

6. Which of the following is a product of powers of positive prime factors of 3528? (Understand, MA 1.1 G.8/1)

   A. $2^3 \times 3^2 \times 7$

   B. $2^3 \times 3^3 \times 7$

   C. $2^3 \times 3^2 \times 7^2$

   D. $2^3 \times 3^3 \times 7^2$

   Solution $2^3 \times 3^2 \times 7^2$

   $3528 = 2^3 \times 3^2 \times 7^2$