

Week 9 Monday Homework Course 3 (Demo Version)

Read each question carefully.

AZ-8.EE.A.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$. [From cluster: Work with radicals and integer exponents]

- 1) Which of the following is equivalent to the expression below?

$$(2^3)(2^4)$$

- A) 2^1
- B) 2^7
- C) 2^{12}
- D) 2^{34}

AZ-8.EE.A.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$. [From cluster: Work with radicals and integer exponents]

- 2) Which of the following has the same value as $\frac{5^{-2}}{5^{-5}}$?

- A) $25^{\frac{2}{5}}$
- B) 5^{-3}
- C) $1^{\frac{2}{5}}$
- D) 5^3

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AZ-8.EE.A.1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$. [From cluster: Work with radicals and integer exponents]

3)

$$\frac{4^7}{4^5} =$$

A) 4^{12}

B) 4^2

C) 4^{-2}

D) 1^{12}

AZ-8.EE.A.2 Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational. [From cluster: Work with radicals and integer exponents]

4) Which of the following represents the cube root of 18?

A) 18^2

B) $\sqrt[3]{18}$

C) $18 \div 3$

D) 18^3

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5) Which of the following is equivalent to the expression below?

$$\frac{\sqrt{64}}{\sqrt{16}}$$

- A) 2
- B) $\sqrt{2}$
- C) $\sqrt{5}$
- D) 4

AZ-8.EE.A.3 Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3 times 10^8 and the population of the world as 7 times 10^9 , and determine that the world population is more than 20 times larger. [From cluster: Work with radicals and integer exponents]

6) Which value in scientific notation is about 101,010?

- A) 10^3
 - B) 10^4
 - C) 10^5
 - D) 10^6
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