

Week 9 Wednesday 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 has the same value as $4^3 \cdot 4^2$?

A) 16^6

B) 16^5

C) 4^6

D) 4^5

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2) What is the value of the expression below?

$$(2^2 + 9) \times 5^2$$

A) 109

B) 325

C) 3,025

D) 4,225

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3)

$$(3^3)^3 =$$

A) 3^0

B) 3^1

C) 3^6

D) 3^9

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4) Which of the following has the same value as $\frac{2^8}{2^2}$?

A) 4^{10}

B) 2^{10}

C) 2^6

D) 1^6

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5)

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

A) 3^6

B) 3^8

C) 9^6

D) 9^8

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]

6) What does the following represent?

$$\sqrt{38}$$

A) the square root of 38

B) the square of 38

C) the quotient of 38 and 2

D) 38 multiplied by 2
