Week 9 Tuesday 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 × 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 $3^2 \cdot 3^{-5}$?

   A) 9^{-10}

   B) 3^{-10}

   C) 9^{-3}

   D) 3^{-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 × 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 $7^7 \cdot 7^{-4}$?

   A) 49^{-3}

   B) 7^{-3}

   C) 7^3

   D) 49^3

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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 × 3^–5 = 3^–3 = 1/3^3 = 1/27. [From cluster: Work with radicals and integer exponents]

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

$$\left(6^2\right)^3$$

A) 6^1

B) 6^5

C) 6^6

D) 6^{23}

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

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

$$\frac{4^5}{4^2}$$

A) $4^{2.5}$

B) 4^3

C) 4^7

D) 4^{52}

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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 SQRT2 is irrational. [From cluster: Work with radicals and integer exponents]

5) Which of the following represents the cube root of 25?

A) $\sqrt{25}$

B) $25 \cdot 3$

C) 25^3

D) $\sqrt[3]{25}$

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 SQRT2 is irrational. [From cluster: Work with radicals and integer exponents]

6) What is d?

$d \times d \times d = 125$

A) cube root of 125

B) square root of 50

C) cube of 5

D) square of 25