

## PoW 29: Solving for Exponents

1. Evaluate the exponents.

$$2^4 = \quad 5^3 = \quad 10^5 =$$

2. Solve the exponent equations.

$$2^x = 64 \quad 5^y = 625 \quad 10^z = 100$$

3. A number  $a$  satisfies the equation  $4^a = 40$ . Which of the following is true?

$$a < 2.5$$

$$a = 2.5$$

$$a > 2.5$$

Write one or two sentences justifying your answer. You will receive full credit for Part 3 if you provide a convincing argument for your answer.

**1. Practice**  
**2. Work Backwards**  
**3. Apply**

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