



GRADE 6 · EXPRESSIONS & EQUATIONS · PRACTICE

WHOLE-NUMBER EXPONENTS

Today's goal: I can write numerical expressions involving whole-number exponents in the form a^b , where a and b are non-zero whole numbers and evaluate numerical expressions involving whole-number exponents, including fractions and decimals raised to whole-number exponents.



Pick your peppers!

Everyone does Mild & Medium. Then climb as high as you can.



Mild

Tan the Turtle



Medium

Digit the Fox



Spicy

Blaze the Dragon



Extra Spicy

Pi the Owl

WATCH MR DJ SOLVE

Evaluate 10^3 .

1 $10 \times 10 \times 10 = 1000$.

Answer: **1000**



REMEMBER a^b means use a as a factor b times. $6^2 = 6 \times 6 = 36$. Write the expansion first — it prevents almost every exponent error.



MILD

Tan the Turtle: Slow and steady. Warm up!

1 Evaluate 5^2 .

Answer

2 Evaluate 2^4 .

Answer



OOPS ALERT

Careful on #1! The slip Mr DJ sees most: Answered 10 (5×2).

**MEDIUM****Digit the Fox:** Stretch your brain.

- 3 Evaluate 4^3 . Show the expansion.

Answer

- 4 Evaluate $(2/3)^2$.

Answer

- 5 Evaluate 0.2^2 .

Answer

**SPICY****Blaze the Dragon:** Bring the heat!

- 6 Which is greater: 3^2 or 2^3 ? Show both and explain what changed.

Answer

- 7 Write $7 \times 7 \times 7$ using an exponent, then evaluate it.

Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

- 8 Evaluate 1^9 . Then explain why the exponent barely matters for a base of 1.

Answer



How did this sheet feel?



Easy for me



Just right



Made me think

Stuck? Watch Mr DJ explain it

"Order of Operations with Exponents | PEMDAS in Under 2 Minutes" on YouTube: youtube.com/@MathWithMrDJ

Brain break: daily puzzles

Three new math puzzles every day, free:
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