

Writing Repeated Multiplication as Powers

Name: _____

Date: _____

Remember: When we multiply the same number repeatedly, we can write it as a power.

Example: $5 \times 5 \times 5 = 5^3$ (we say "5 to the power of 3" or "5 cubed")

Part A: Write these repeated multiplications as powers

1. $4 \times 4 \times 4 \times 4 =$ _____

2. $7 \times 7 \times 7 =$ _____

3. $2 \times 2 \times 2 \times 2 \times 2 =$ _____

4. $9 \times 9 =$ _____

5. $3 \times 3 \times 3 \times 3 =$ _____

6. $10 \times 10 \times 10 \times 10 \times 10 \times 10 =$ _____

Part B: Write these powers as repeated multiplication

1. $6^3 =$ _____

2. $5^4 =$ _____

3. $8^2 =$ _____

4. $2^6 =$ _____

5. $4^5 =$ _____

Part C: Calculate the value of these powers

1. $2^3 =$ _____

2. $3^2 =$ _____

3. $5^2 =$ _____

4. $2^4 =$ _____

5. $10^3 =$ _____

6. $4^2 =$ _____

7. $2^5 =$ _____

8. $3^3 =$ _____

Part D: Challenge questions

1. Which is larger: 2^5 or 5^2 ? _____

2. Write 64 as a power of 2: $64 =$ _____

3. Write 81 as a power of 3: $81 =$ _____