

Expanded Exponential Form With Decimals (J)

Name: _____

Date: _____

Convert each standard form decimal number to expanded exponential form.

1. 1.51254303
2. 6.47994243
3. 7.52923355
4. 3.58371682
5. 1.34030369
6. 3.26926365
7. 6.49692621
8. 7.71665292
9. 1.29256958
10. 8.29672124

Expanded Exponential Form With Decimals (J) Answers

Name: _____

Date: _____

Convert each standard form decimal number to expanded exponential form.

1. **1.51254303**

$$(1 \times 10^0) + (5 \times 10^{-1}) + (1 \times 10^{-2}) + (2 \times 10^{-3}) + (5 \times 10^{-4}) + (4 \times 10^{-5}) + (3 \times 10^{-6}) + (3 \times 10^{-8})$$

2. **6.47994243**

$$(6 \times 10^0) + (4 \times 10^{-1}) + (7 \times 10^{-2}) + (9 \times 10^{-3}) + (9 \times 10^{-4}) + (4 \times 10^{-5}) + (2 \times 10^{-6}) + (4 \times 10^{-7}) + (3 \times 10^{-8})$$

3. **7.52923355**

$$(7 \times 10^0) + (5 \times 10^{-1}) + (2 \times 10^{-2}) + (9 \times 10^{-3}) + (2 \times 10^{-4}) + (3 \times 10^{-5}) + (3 \times 10^{-6}) + (5 \times 10^{-7}) + (5 \times 10^{-8})$$

4. **3.58371682**

$$(3 \times 10^0) + (5 \times 10^{-1}) + (8 \times 10^{-2}) + (3 \times 10^{-3}) + (7 \times 10^{-4}) + (1 \times 10^{-5}) + (6 \times 10^{-6}) + (8 \times 10^{-7}) + (2 \times 10^{-8})$$

5. **1.34030369**

$$(1 \times 10^0) + (3 \times 10^{-1}) + (4 \times 10^{-2}) + (3 \times 10^{-4}) + (3 \times 10^{-6}) + (6 \times 10^{-7}) + (9 \times 10^{-8})$$

6. **3.26926365**

$$(3 \times 10^0) + (2 \times 10^{-1}) + (6 \times 10^{-2}) + (9 \times 10^{-3}) + (2 \times 10^{-4}) + (6 \times 10^{-5}) + (3 \times 10^{-6}) + (6 \times 10^{-7}) + (5 \times 10^{-8})$$

7. **6.49692621**

$$(6 \times 10^0) + (4 \times 10^{-1}) + (9 \times 10^{-2}) + (6 \times 10^{-3}) + (9 \times 10^{-4}) + (2 \times 10^{-5}) + (6 \times 10^{-6}) + (2 \times 10^{-7}) + (1 \times 10^{-8})$$

8. **7.71665292**

$$(7 \times 10^0) + (7 \times 10^{-1}) + (1 \times 10^{-2}) + (6 \times 10^{-3}) + (6 \times 10^{-4}) + (5 \times 10^{-5}) + (2 \times 10^{-6}) + (9 \times 10^{-7}) + (2 \times 10^{-8})$$

9. **1.29256958**

$$(1 \times 10^0) + (2 \times 10^{-1}) + (9 \times 10^{-2}) + (2 \times 10^{-3}) + (5 \times 10^{-4}) + (6 \times 10^{-5}) + (9 \times 10^{-6}) + (5 \times 10^{-7}) + (8 \times 10^{-8})$$

10. **8.29672124**

$$(8 \times 10^0) + (2 \times 10^{-1}) + (9 \times 10^{-2}) + (6 \times 10^{-3}) + (7 \times 10^{-4}) + (2 \times 10^{-5}) + (1 \times 10^{-6}) + (2 \times 10^{-7}) + (4 \times 10^{-8})$$