Name: _____ Date: _____

Multiplying and Dividing by Powers of 10

Grade 5 | Multiplying and dividing by powers of 10, including exponents | Version 4 of 10

Powers of 10: $10^1 = 10$, $10^2 = 100$, $10^3 = 1{,}000$. Multiplying by 10 moves each digit one place to the left; dividing by 10 moves each digit one place to the right.

Part A: Multiply by a power of 10. The exponent tells how many zeros to write.

1. $93 \times 10^1 =$ _____
2. $79 \times 10^3 =$ _____
3. $8 \times 10^3 =$ _____
4. $40 \times 10^2 =$ _____
5. $92 \times 10^2 =$ _____
6. $13 \times 10^1 =$ _____

Part B: Multiply. Move the decimal point one place to the right for each power of 10.

7. $59.71 \times 10 =$ _____
8. $26.05 \times 1{,}000 =$ _____
9. $17.62 \times 10^3 =$ _____
10. $17.69 \times 10^3 =$ _____
11. $58.9 \times 10^1 =$ _____
12. $29.7 \times 1{,}000 =$ _____

Part C: Divide. Move the decimal point one place to the left for each power of 10.

13. $9{,}061 \div 10^3 =$ _____
14. $57.9 \div 100 =$ _____
15. $8.1 \div 10^3 =$ _____
16. $34.1 \div 10^2 =$ _____
17. $4{,}626 \div 10^1 =$ _____
18. $15.9 \div 100 =$ _____

Multiplying and Dividing by Powers of 10 - ANSWER KEY

Grade 5 | Multiplying and dividing by powers of 10, including exponents | Version 4 of 10

Powers of 10: $10^1 = 10$, $10^2 = 100$, $10^3 = 1{,}000$. Multiplying by 10 moves each digit one place to the left; dividing by 10 moves each digit one place to the right.

Part A: Multiply by a power of 10. The exponent tells how many zeros to write.

1. $93 \times 10^1 =$ **930**
2. $79 \times 10^3 =$ **79,000**
3. $8 \times 10^3 =$ **8,000**
4. $40 \times 10^2 =$ **4,000**
5. $92 \times 10^2 =$ **9,200**
6. $13 \times 10^1 =$ **130**

Part B: Multiply. Move the decimal point one place to the right for each power of 10.

7. $59.71 \times 10 =$ **597.1**
8. $26.05 \times 1{,}000 =$ **26,050**
9. $17.62 \times 10^3 =$ **17,620**
10. $17.69 \times 10^3 =$ **17,690**
11. $58.9 \times 10^1 =$ **589**
12. $29.7 \times 1{,}000 =$ **29,700**

Part C: Divide. Move the decimal point one place to the left for each power of 10.

13. $9{,}061 \div 10^3 =$ **9.061**
14. $57.9 \div 100 =$ **0.579**
15. $8.1 \div 10^3 =$ **0.0081**
16. $34.1 \div 10^2 =$ **0.341**
17. $4{,}626 \div 10^1 =$ **462.6**
18. $15.9 \div 100 =$ **0.159**