



## Multiplying and Dividing Powers of Ten

Name: \_\_\_\_\_

Solve each problem.

$$5.47 \times 10^4$$

This is the same as saying:

$$5.47 \times (10 \times 10 \times 10 \times 10)$$

And because the base is 10 you can just move the decimal 4 places to the right to solve.

$$5.47 \times 10^4 = 54,700$$

$$\underline{5} \underline{4} \underline{7} \underline{0} \underline{0}.$$

$$2.36 \div 10^2$$

Division is the same way. Only instead of moving the decimal right, you move it left.

You can also multiply a negative exponent, which means the same thing.

$$2.36 \times 10^{-2} = 2.36 \div 10^2$$

$$\underline{.0} \underline{2} \underline{3} \underline{6}$$

1)  $8.416 \div 10^3$

2)  $45.7 \times 10^2$

3)  $4.38 \div 10^3$

4)  $19.32 \times 10^1$

5)  $4.7 \div 10^2$

6)  $42.88 \times 10^3$

7)  $7.3 \div 10^3$

8)  $4.67 \times 10^1$

9)  $1.5 \div 10^3$

10)  $43.449 \times 10^3$

11)  $726.191 \div 10^2$

12)  $37.7 \times 10^2$

13)  $6.399 \div 10^3$

14)  $146.4 \times 10^1$

15)  $75.54 \div 10^2$

16)  $5.989 \times 10^2$

17)  $4.621 \div 10^3$

18)  $58.858 \times 10^1$

19)  $5.7 \div 10^4$

20)  $74.348 \times 10^1$

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_

16. \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

19. \_\_\_\_\_

20. \_\_\_\_\_



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$$5.47 \times 10^4 = 54,700$$

$$\underline{5} \underline{4} \underline{7} \underline{0} 0.$$

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$$2.36 \times 10^{-2} = 2.36 \div 10^2$$

$$\underline{.0} \underline{2} \underline{3} 6$$

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**Answers**

1. **0.008416**

2. **4,570**

3. **0.00438**

4. **193.2**

5. **0.047**

6. **42,880**

7. **0.0073**

8. **46.7**

9. **0.0015**

10. **43,449**

11. **7.26191**

12. **3,770**

13. **0.006399**

14. **1,464**

15. **0.7554**

16. **598.9**

17. **0.004621**

18. **588.58**

19. **0.00057**

20. **743.48**