

Name \_\_\_\_\_

Date \_\_\_\_\_

## Multiplying and Dividing by 10, 100, and 1000

In this worksheet, we will practice the "trick" of multiplying and dividing by 10, 100, and 1,000.

When you multiply by 10, you move the decimal once to the right ( $1.35 \times 10 = 13.5$ )

When you multiply by 100, you move the decimal twice to the right ( $1.536 \times 100 = 153.6$ )

When you multiply by 1,000, you move the decimal three times to the right ( $1.2345 \times 1,000 = 1,234.5$ )

If there is no decimal, you just add one, two, or three zeroes onto the number.

$3 \times 10 = 30$ ;  $45 \times 100 = 4500$ ;  $21 \times 1,000 = 21,000$

When you divide by 10, you move the decimal once to the left ( $123.5 \div 10 = 12.35$ )

When you divide by 100, you move the decimal twice to the left ( $148.2 \div 100 = 1.482$ )

When you divide by 1,000, you move the decimal three times to the left ( $259.3 \div 1,000 = .2593$ )

If there is no decimal, pretend there is one after the whole number and move it. Add zeroes where the empty spaces are ( $4 \div 1,000 = .004$ )

Also, if you run out of numbers when you are moving a decimal, add zeroes.

$.42 \div 100 = .0042$

### Exercise Questions:

1.  $2.65 \times 10 =$  \_\_\_\_\_

6.  $310.9 \div 10 =$  \_\_\_\_\_

2.  $2.685 \times 10 =$  \_\_\_\_\_

7.  $834.6 \div 10 =$  \_\_\_\_\_

3.  $3.127 \times 100 =$  \_\_\_\_\_

8.  $175.12 \div 100 =$  \_\_\_\_\_

4.  $4.829 \times 100 =$  \_\_\_\_\_

9.  $25.96 \div 100 =$  \_\_\_\_\_

5.  $7.856 \times 1,000 =$  \_\_\_\_\_

10.  $475.98 \div 1,000 =$  \_\_\_\_\_



## Answer Key

### Multiplying and Dividing by 10, 100, and 1000

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When you multiply by 10, you move the decimal once to the right ( $1.35 \times 10 = 13.5$ )

When you multiply by 100, you move the decimal twice to the right ( $1.536 \times 100 = 153.6$ )

When you multiply by 1,000, you move the decimal three times to the right ( $1.2345 \times 1,000 = 1,234.5$ )

If there is no decimal, you just add one, two, or three zeroes onto the number.

$3 \times 10 = 30$ ;  $45 \times 100 = 4500$ ;  $21 \times 1,000 = 21,000$

When you divide by 10, you move the decimal once to the left ( $123.5 \div 10 = 12.35$ )

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If there is no decimal, pretend there is one after the whole number and move it. Add zeroes where the empty spaces are ( $4 \div 1,000 = .004$ )

Also, if you run out of numbers when you are moving a decimal, add zeroes.

$.42 \div 100 = .0042$

#### Exercise Questions:

1.  $2.65 \times 10 = \underline{26.5}$

6.  $310.9 \div 10 = \underline{31.09}$

2.  $2.685 \times 10 = \underline{26.85}$

7.  $834.6 \div 10 = \underline{83.46}$

3.  $3.127 \times 100 = \underline{312.7}$

8.  $175.12 \div 100 = \underline{1.7512}$

4.  $4.829 \times 100 = \underline{482.7}$

9.  $25.96 \div 100 = \underline{.2596}$

5.  $7.856 \times 1,000 = \underline{7,856}$

10.  $475.98 \div 1,000 = \underline{.47598}$

