MATH

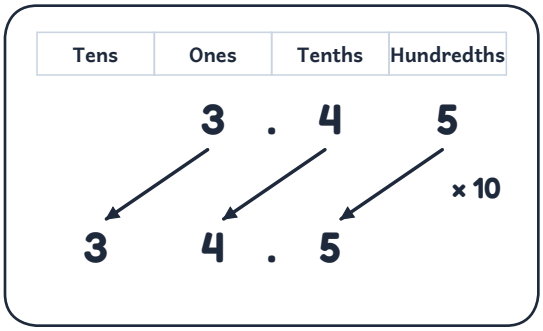
Multiplying and dividing by 10, 100 and 1,000

Name _____ Date _____

I can multiply and divide decimals by 10, 100 and 1,000.

1 How it works

When you multiply by 10, every digit moves one place to the left, so 3.45 × 10 = 34.5. Multiply by 100 and the digits move two places; by 1,000, three places. Dividing moves the digits to the right: 34.5 ÷ 10 = 3.45. Count the zeros to know how many places.



2 Multiply by 10, 100 or 1,000

Move each digit 1, 2 or 3 places left.

1. 48.9 × 100 = ☐
2. 8.36 × 10 = ☐
3. 27.3 × 100 = ☐
4. 0.063 × 1,000 = ☐
5. 7.87 × 100 = ☐
6. 44.6 × 1,000 = ☐
7. 9.62 × 1,000 = ☐
8. 0.69 × 100 = ☐
9. 5.24 × 100 = ☐

How did I do? ☆ ☆ ☆

Scan for more free practice

Divide and find the missing number

Name _____ Date _____

I can divide by 10, 100 and 1,000.

1 Divide by 10, 100 or 1,000

Move each digit 1, 2 or 3 places right.

1. 48.4 ÷ 100 = ☐
2. 49.2 ÷ 10 = ☐
3. 50.1 ÷ 10 = ☐
4. 481 ÷ 1,000 = ☐
5. 25.8 ÷ 100 = ☐
6. 551 ÷ 10 = ☐
7. 54.4 ÷ 100 = ☐
8. 94.3 ÷ 100 = ☐
9. 132 ÷ 100 = ☐

2 Find the missing number

Is it 10, 100 or 1,000?

1. 9.04 × ☐ = 90.4
2. 44.9 × ☐ = 44,900
3. 9.55 ÷ ☐ = 0.955
4. 1.38 × ☐ = 13.8
5. 31.9 ÷ ☐ = 0.0319
6. 4.58 ÷ ☐ = 0.458

How did I do? ☆ ☆ ☆

Scan for more free practice

Patterns and powers of 10

Name _____ Date _____

I can use patterns and exponents for powers of 10.

1 Complete the table

Number	× 10	× 100	÷ 10	÷ 100
74.1				
79.9				
44.8				
34.8				

2 Powers of 10

$10^2 = 10 \times 10 = 100$ $10^3 = 10 \times 10 \times 10 = 1{,}000$

1. $58 \div 10^2 =$ ____
2. $7 \times 10^3 =$ ____
3. $3.4 \times 10^2 =$ ____
4. $3.3 \times 10^3 =$ ____
5. $9 \times 10^2 =$ ____
6. $0.6 \times 10^2 =$ ____

3 Think about it

1. What is 10^3? ____
2. Mia says 4.5 × 10 = 4.50. Is she right? ____
3. How many times bigger is 520 than 5.2? ____

How did I do? ☆ ☆ ☆

Scan for more free practice

Word problems

Name _____ Date _____

I can use decimals to solve problems.

1 Read, think, answer

Show your thinking in the box.

1 One pencil costs $0.35. How much do 10 pencils cost? How much do 100 pencils cost?

Answer:

2 A notebook is 0.8 cm thick. How tall is a stack of 100 notebooks?

Answer:

3 1,000 paper clips weigh 450 grams. How much does one paper clip weigh?

Answer:

4 When you multiply me by 100, you get 36. What number am I?

Answer:

How did I do? ☆ ☆ ☆

Scan for more free practice

FOR TEACHERS AND PARENTS

Answer key: multiplying and dividing by 10, 100 and 1,000

1 Page 1

Multiply: 1) 4,890; 2) 83.6; 3) 2,730; 4) 63; 5) 787; 6) 44,600; 7) 9,620; 8) 69; 9) 524.

2 Page 2

Divide: 1) 0.484; 2) 4.92; 3) 5.01; 4) 0.481; 5) 0.258; 6) 55.1; 7) 0.544; 8) 0.943; 9) 1.32.

Missing numbers: 1) 10; 2) 1,000; 3) 10; 4) 10; 5) 1,000; 6) 10.

3 Page 3

Table: 74.1: 741, 7,410, 7.41, 0.741; 79.9: 799, 7,990, 7.99, 0.799; 44.8: 448, 4,480, 4.48, 0.448; 34.8: 348, 3,480, 3.48, 0.348.

Powers of 10: 1) 0.58; 2) 7,000; 3) 340; 4) 3,300; 5) 900; 6) 60.

Think: 1) 1,000; 2) No. 4.5 × 10 = 45. Each digit moves one place left; 3) 100 times.

4 Page 4: word problems

1) 10 pencils: $3.50. 100 pencils: $35.00

2) 0.8 × 100 = 80 cm

3) 450 ÷ 1,000 = 0.45 grams

4) 0.36

5 Teaching tip

Avoid saying "just add a zero". It works for 3 × 10 but gives 3.40 for 3.4 × 10. Say "the digits move" instead, and use a place value chart until it sticks.

Scan for more free practice