MATH · DECIMAL OPERATIONS

Decimal rules cheat sheet

1 Multiply by 10, 100, 1,000

Each digit moves 1, 2 or 3 places to the left. The number gets bigger.

3.45 × 100 = 345

One zero, one place. Two zeros, two places.

2 Divide by 10, 100, 1,000

Each digit moves 1, 2 or 3 places to the right. The number gets smaller.

27 ÷ 1,000 = 0.027

Fill empty places with zeros.

3 Round

Look at the digit to the right of the place you round to. 5 or more: round up. Less than 5: keep it.

4.68 rounds to 4.7

Then drop the digits after it.

4 Multiply decimals

Multiply as whole numbers. Count the decimal places in both numbers. The answer has that many.

1.2 × 0.3 = 0.36

12 × 3 = 36; 1 + 1 = 2 places

5 Divide by a whole number

Put the point in the answer straight above the point in the number you divide. Then divide as usual.

7.5 ÷ 3 = 2.5

Check: 2.5 × 3 = 7.5

6 Divide by a decimal

Multiply both numbers by 10 or 100 until the divisor is a whole number. The answer does not change.

1.2 ÷ 0.3 = 12 ÷ 3 = 4

Same answer, easier problem.

Always estimate first: round to whole numbers and check that your answer makes sense.

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