MATHEMATICS · GRADES 4-6

Converting fractions to decimals

Difficulty level: Intermediate

Mathematics: Grades 4-6

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Overview of the concept

This is how you turn a fraction into a decimal (see Terminating and repeating decimals). Working out a share of a bill or a measurement in money needs decimals, because cash and most measurements use them. It is a conversion you do constantly in real life, whenever a fraction meets a price tag or a measuring tape.



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Worked examples

EXAMPLE 1

Q Write $\frac{3}{4}$ as a decimal

SOLUTION

$\frac{3}{4}$ means $3 \div 4$

$3 \div 4 = 0.75$

Answer: 0.75

Read the fraction as division: $3 \div 4$

Divide: 4 goes into 30 seven times (28), leaving 2, then into 20 five times.

So the answer is 0.75.

EXAMPLE 2

Q Write $\frac{1}{8}$ as a decimal

SOLUTION

$\frac{1}{8}$ means $1 \div 8$

$1 \div 8 = 0.125$

Answer: 0.125

Read the fraction as division: $1 \div 8$

Divide: 8 goes into 10 once, into 20 twice, into 40 five times.

So the answer is 0.125.

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Practice questions

1 Write $\frac{7}{8}$ as a decimal.

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2 Write $\frac{3}{8}$ as a decimal.

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3 What decimal is $\frac{1}{2}$?

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4 Write $\frac{2}{5}$ as a decimal.

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5 What decimal is $\frac{7}{10}$?

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6 What decimal is $\frac{1}{4}$?

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7 What decimal is $\frac{3}{5}$?

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8 What decimal is $\frac{1}{20}$?

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9 Write $\frac{9}{10}$ as a decimal.

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10 What decimal is $\frac{5}{8}$?

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ANSWER KEY

1. 0.875

2. 0.375

3. 0.5

4. 0.4

5. 0.7

6. 0.25

7. 0.6

8. 0.05

9. 0.9

10. 0.625

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