

# Repeating Decimals to Fractions

(2 or more repeating digits)

1. Find the fraction equal to  $0.\overline{24}$ .

2. Find the fraction equal to  $0.\overline{81}$ .

3. Find the fraction equal to  $0.\overline{64}$ .

4. Find the fraction equal to  $2.\overline{431}$ .

5. Find the fraction equal to  $1.\overline{322}$ .

6. Find the fraction equal to  $12.\overline{53}$ .

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(2 or more repeating digits)

1. Find the fraction equal to  $0.\overline{24}$ .

$$\begin{aligned}x &= 0.\overline{24} \\100x &= 24.\overline{24} \\100x - x &= 24.\overline{24} - 0.\overline{24} \\99x &= 24 \\x &= \frac{24}{99}\end{aligned}$$

2. Find the fraction equal to  $0.\overline{81}$ .

$$\begin{aligned}x &= 0.\overline{81} \\100x &= 81.\overline{81} \\100x - x &= 81.\overline{81} - 0.\overline{81} \\99x &= 81 \\x &= \frac{81}{99}\end{aligned}$$

3. Find the fraction equal to  $0.\overline{64}$ .

$$\begin{aligned}x &= 0.\overline{64} \\100x &= 64.\overline{64} \\100x - x &= 64.\overline{64} - 0.\overline{64} \\99x &= 64 \\x &= \frac{64}{99}\end{aligned}$$

4. Find the fraction equal to  $2.\overline{431}$ .

$$\begin{aligned}x &= 2.\overline{431} \\1000x &= 2431.\overline{431} \\1000x - x &= 2431.\overline{431} - 2.\overline{431} \\999x &= 2429 \\x &= \frac{2429}{999}\end{aligned}$$

5. Find the fraction equal to  $1.\overline{322}$ .

$$\begin{aligned}x &= 1.\overline{322} \\1000x &= 1322.\overline{322} \\1000x - x &= 1322.\overline{322} - 1.\overline{322} \\999x &= 1321 \\x &= \frac{1321}{999}\end{aligned}$$

6. Find the fraction equal to  $12.\overline{53}$ .

$$\begin{aligned}x &= 12.\overline{53} \\100x &= 1253.\overline{53} \\100x - x &= 1253.\overline{53} - 12.\overline{53} \\99x &= 1241 \\x &= \frac{1241}{99}\end{aligned}$$