



Bestimmen Sie, ob jedes Problem, wenn es in eine Dezimalzahl umgewandelt wird, zu einer sich wiederholenden (R) oder abschließenden (T) Dezimalzahl führt.

Antworten

A fraction will result in a **terminating** decimal if the prime factors of the simplified denominator contain only 2s or 5s (or only 2s and 5s).

$$\frac{6}{40} = \frac{3}{20} = 2 \times 2 \times 5 = 0.15$$

A fraction will result in a **repeating** decimal if the prime factors of the simplified denominator contain any prime factor other than 2 or 5.

$$\frac{5}{42} = 2 \times 3 \times 7 = 0.1190476$$

- 1) $\frac{1}{12} =$ _____
- 2) $30 : 8 =$ _____
- 3) $74 : 13 =$ _____
- 4) $135 : 18 =$ _____
- 5) $23 : 7 =$ _____
- 6) $\frac{15}{17} =$ _____
- 7) $\frac{12}{25} =$ _____
- 8) $107 : 19 =$ _____
- 9) $63 : 6 =$ _____
- 10) $78 : 9 =$ _____
- 11) $286 : 30 =$ _____
- 12) $\frac{2}{5} =$ _____
- 13) $52 : 21 =$ _____
- 14) $\frac{15}{23} =$ _____
- 15) $\frac{9}{26} =$ _____

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____



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$$\frac{5}{42} = 2 \times 3 \times 7 = 0.1190476$$

- 1) $\frac{1}{12} =$ 2•2•3
- 2) $30 : 8 =$ 2•2
- 3) $74 : 13 =$ 13
- 4) $135 : 18 =$ 2
- 5) $23 : 7 =$ 7
- 6) $\frac{15}{17} =$ 17
- 7) $\frac{12}{25} =$ 5•5
- 8) $107 : 19 =$ 19
- 9) $63 : 6 =$ 2
- 10) $78 : 9 =$ 3
- 11) $286 : 30 =$ 3•5
- 12) $\frac{2}{5} =$ 5
- 13) $52 : 21 =$ 3•7
- 14) $\frac{15}{23} =$ 23
- 15) $\frac{9}{26} =$ 2•13

Antworten

1. R
2. T
3. R
4. T
5. R
6. R
7. T
8. R
9. T
10. R
11. R
12. T
13. R
14. R
15. R