



Determine if each problem when converted to a decimal will result in a repeating (R) or terminating (T) decimal.

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.

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

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

1) $\frac{10}{30} =$ _____

2) $\frac{1}{7} =$ _____

3) $\frac{2}{15} =$ _____

4) $156 \div 27 =$ _____

5) $48 \div 5 =$ _____

6) $135 \div 29 =$ _____

7) $\frac{10}{14} =$ _____

8) $\frac{11}{16} =$ _____

9) $156 \div 21 =$ _____

10) $\frac{7}{11} =$ _____

11) $142 \div 19 =$ _____

12) $71 \div 12 =$ _____

13) $127 \div 23 =$ _____

14) $\frac{2}{10} =$ _____

15) $\frac{1}{2} =$ _____



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

- 1) $\frac{10}{30} =$ 3
- 2) $\frac{1}{7} =$ 7
- 3) $\frac{2}{15} =$ 3×5
- 4) $156 \div 27 =$ 3×3
- 5) $48 \div 5 =$ 5
- 6) $135 \div 29 =$ 29
- 7) $\frac{10}{14} =$ 7
- 8) $\frac{11}{16} =$ 2×2×2×2
- 9) $156 \div 21 =$ 7
- 10) $\frac{7}{11} =$ 11
- 11) $142 \div 19 =$ 19
- 12) $71 \div 12 =$ 2×2×3
- 13) $127 \div 23 =$ 23
- 14) $\frac{2}{10} =$ 5
- 15) $\frac{1}{2} =$ 2

Answers

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