



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

Answers

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.

$$\frac{5}{42} = 2 \times 3 \times 7 = 0.1\overline{190476}$$

1)  $136 \div 19 =$  \_\_\_\_\_

2)  $\frac{7}{26} =$  \_\_\_\_\_

3)  $8 \div 3 =$  \_\_\_\_\_

4)  $\frac{5}{23} =$  \_\_\_\_\_

5)  $79 \div 13 =$  \_\_\_\_\_

6)  $\frac{6}{12} =$  \_\_\_\_\_

7)  $48 \div 21 =$  \_\_\_\_\_

8)  $\frac{24}{27} =$  \_\_\_\_\_

9)  $\frac{8}{29} =$  \_\_\_\_\_

10)  $\frac{5}{30} =$  \_\_\_\_\_

11)  $172 \div 28 =$  \_\_\_\_\_

12)  $\frac{4}{10} =$  \_\_\_\_\_

13)  $36 \div 11 =$  \_\_\_\_\_

14)  $\frac{2}{8} =$  \_\_\_\_\_

15)  $\frac{8}{16} =$  \_\_\_\_\_

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



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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.

$$\frac{5}{42} = 2 \times 3 \times 7 = 0.11\overline{90476}$$

1)  $136 \div 19 =$  19

2)  $\frac{7}{26} =$  2×13

3)  $8 \div 3 =$  3

4)  $\frac{5}{23} =$  23

5)  $79 \div 13 =$  13

6)  $\frac{6}{12} =$  2

7)  $48 \div 21 =$  7

8)  $\frac{24}{27} =$  3×3

9)  $\frac{8}{29} =$  29

10)  $\frac{5}{30} =$  2×3

11)  $172 \div 28 =$  7

12)  $\frac{4}{10} =$  5

13)  $36 \div 11 =$  11

14)  $\frac{2}{8} =$  2×2

15)  $\frac{8}{16} =$  2

Answers

1. R

2. R

3. R

4. R

5. R

6. T

7. R

8. R

9. R

10. R

11. R

12. T

13. R

14. T

15. T