



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)  $\frac{22}{27} =$  \_\_\_\_\_
- 2)  $\frac{8}{28} =$  \_\_\_\_\_
- 3)  $\frac{10}{20} =$  \_\_\_\_\_
- 4)  $\frac{5}{16} =$  \_\_\_\_\_
- 5)  $62 \div 13 =$  \_\_\_\_\_
- 6)  $63 \div 6 =$  \_\_\_\_\_
- 7)  $73 \div 11 =$  \_\_\_\_\_
- 8)  $\frac{17}{29} =$  \_\_\_\_\_
- 9)  $\frac{10}{19} =$  \_\_\_\_\_
- 10)  $\frac{17}{24} =$  \_\_\_\_\_
- 11)  $78 \div 15 =$  \_\_\_\_\_
- 12)  $206 \div 21 =$  \_\_\_\_\_
- 13)  $101 \div 10 =$  \_\_\_\_\_
- 14)  $64 \div 7 =$  \_\_\_\_\_
- 15)  $\frac{3}{26} =$  \_\_\_\_\_

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)  $\frac{22}{27} = \underline{3 \times 3 \times 3}$

2)  $\frac{8}{28} = \underline{7}$

3)  $\frac{10}{20} = \underline{2}$

4)  $\frac{5}{16} = \underline{2 \times 2 \times 2 \times 2}$

5)  $62 \div 13 = \underline{13}$

6)  $63 \div 6 = \underline{2}$

7)  $73 \div 11 = \underline{11}$

8)  $\frac{17}{29} = \underline{29}$

9)  $\frac{10}{19} = \underline{19}$

10)  $\frac{17}{24} = \underline{2 \times 2 \times 2 \times 3}$

11)  $78 \div 15 = \underline{5}$

12)  $206 \div 21 = \underline{3 \times 7}$

13)  $101 \div 10 = \underline{2 \times 5}$

14)  $64 \div 7 = \underline{7}$

15)  $\frac{3}{26} = \underline{2 \times 13}$

Answers

1. R

2. R

3. T

4. T

5. R

6. T

7. R

8. R

9. R

10. R

11. T

12. R

13. T

14. R

15. R