



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)  $142 \div 13 =$  \_\_\_\_\_

2)  $\frac{12}{23} =$  \_\_\_\_\_

3)  $58 \div 16 =$  \_\_\_\_\_

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

5)  $\frac{6}{29} =$  \_\_\_\_\_

6)  $58 \div 24 =$  \_\_\_\_\_

7)  $62 \div 8 =$  \_\_\_\_\_

8)  $\frac{6}{10} =$  \_\_\_\_\_

9)  $\frac{2}{4} =$  \_\_\_\_\_

10)  $\frac{14}{15} =$  \_\_\_\_\_

11)  $100 \div 30 =$  \_\_\_\_\_

12)  $94 \div 21 =$  \_\_\_\_\_

13)  $\frac{18}{25} =$  \_\_\_\_\_

14)  $157 \div 22 =$  \_\_\_\_\_

15)  $62 \div 20 =$  \_\_\_\_\_

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_



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.

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

Answers

1)  $142 \div 13 =$  13

2)  $\frac{12}{23} =$  23

3)  $58 \div 16 =$   $2 \times 2 \times 2$

4)  $\frac{2}{14} =$  7

5)  $\frac{6}{29} =$  29

6)  $58 \div 24 =$   $2 \times 2 \times 3$

7)  $62 \div 8 =$   $2 \times 2$

8)  $\frac{6}{10} =$  5

9)  $\frac{2}{4} =$  2

10)  $\frac{14}{15} =$   $3 \times 5$

11)  $100 \div 30 =$  3

12)  $94 \div 21 =$   $3 \times 7$

13)  $\frac{18}{25} =$   $5 \times 5$

14)  $157 \div 22 =$   $2 \times 11$

15)  $62 \div 20 =$   $2 \times 5$

1. R

2. R

3. T

4. R

5. R

6. R

7. T

8. T

9. T

10. R

11. R

12. R

13. T

14. R

15. T