



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.

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

1) $73 \div 13 =$ _____

2) $\frac{3}{4} =$ _____

3) $52 \div 11 =$ _____

4) $202 \div 29 =$ _____

5) $\frac{8}{25} =$ _____

6) $119 \div 21 =$ _____

7) $\frac{5}{6} =$ _____

8) $\frac{5}{12} =$ _____

9) $146 \div 14 =$ _____

10) $77 \div 8 =$ _____

11) $85 \div 24 =$ _____

12) $86 \div 15 =$ _____

13) $\frac{3}{26} =$ _____

14) $\frac{8}{10} =$ _____

15) $292 \div 27 =$ _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____



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1) $73 \div 13 =$ 13

2) $\frac{3}{4} =$ 2x2

3) $52 \div 11 =$ 11

4) $202 \div 29 =$ 29

5) $\frac{8}{25} =$ 5x5

6) $119 \div 21 =$ 3

7) $\frac{5}{6} =$ 2x3

8) $\frac{5}{12} =$ 2x2x3

9) $146 \div 14 =$ 7

10) $77 \div 8 =$ 2x2x2

11) $85 \div 24 =$ 2x2x2x3

12) $86 \div 15 =$ 3x5

13) $\frac{3}{26} =$ 2x13

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

15) $292 \div 27 =$ 3x3x3

Answers

1. R

2. T

3. R

4. R

5. T

6. R

7. R

8. R

9. R

10. T

11. R

12. R

13. R

14. T

15. R