



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) $\frac{8}{14} =$ _____
- 2) $\frac{3}{5} =$ _____
- 3) $\frac{12}{18} =$ _____
- 4) $34 \div 10 =$ _____
- 5) $\frac{10}{17} =$ _____
- 6) $68 \div 9 =$ _____
- 7) $37 \div 13 =$ _____
- 8) $41 \div 6 =$ _____
- 9) $\frac{2}{29} =$ _____
- 10) $\frac{17}{26} =$ _____
- 11) $23 \div 7 =$ _____
- 12) $16 \div 3 =$ _____
- 13) $224 \div 22 =$ _____
- 14) $109 \div 27 =$ _____
- 15) $172 \div 20 =$ _____

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



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

1) $\frac{8}{14} =$ 7

2) $\frac{3}{5} =$ 5

3) $\frac{12}{18} =$ 3

4) $34 \div 10 =$ 5

5) $\frac{10}{17} =$ 17

6) $68 \div 9 =$ 3x3

7) $37 \div 13 =$ 13

8) $41 \div 6 =$ 2x3

9) $\frac{2}{29} =$ 29

10) $\frac{17}{26} =$ 2x13

11) $23 \div 7 =$ 7

12) $16 \div 3 =$ 3

13) $224 \div 22 =$ 11

14) $109 \div 27 =$ 3x3x3

15) $172 \div 20 =$ 5

Answers

1. R

2. T

3. R

4. T

5. R

6. R

7. R

8. R

9. R

10. R

11. R

12. R

13. R

14. R

15. T