



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. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

1) $291 \div 27 =$ _____

2) $\frac{11}{17} =$ _____

3) $\frac{11}{29} =$ _____

4) $\frac{4}{12} =$ _____

5) $109 \div 11 =$ _____

6) $210 \div 26 =$ _____

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

8) $\frac{1}{8} =$ _____

9) $199 \div 23 =$ _____

10) $\frac{4}{10} =$ _____

11) $\frac{14}{15} =$ _____

12) $\frac{26}{28} =$ _____

13) $28 \div 3 =$ _____

14) $\frac{1}{2} =$ _____

15) $260 \div 25 =$ _____



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

1) $291 \div 27 =$ **3×3**

2) $\frac{11}{17} =$ **17**

3) $\frac{11}{29} =$ **29**

4) $\frac{4}{12} =$ **3**

5) $109 \div 11 =$ **11**

6) $210 \div 26 =$ **13**

7) $\frac{5}{6} =$ **2×3**

8) $\frac{1}{8} =$ **2×2×2**

9) $199 \div 23 =$ **23**

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

11) $\frac{14}{15} =$ **3×5**

12) $\frac{26}{28} =$ **2×7**

13) $28 \div 3 =$ **3**

14) $\frac{1}{2} =$ **2**

15) $260 \div 25 =$ **5**

Answers

1. **R**

2. **R**

3. **R**

4. **R**

5. **R**

6. **R**

7. **R**

8. **T**

9. **R**

10. **T**

11. **R**

12. **R**

13. **R**

14. **T**

15. **T**