



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).

$$6/40 = 3/20 = 2 \times 2 \times 5 = 0.15$$

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.

$$5/42 = 2 \times 3 \times 7 = 0.1190476$$

1) $209 \div 26 =$ _____

2) $82 \div 15 =$ _____

3) $3/4 =$ _____

4) $176 \div 18 =$ _____

5) $204 \div 29 =$ _____

6) $6/11 =$ _____

7) $2/5 =$ _____

8) $22 \div 9 =$ _____

9) $16/24 =$ _____

10) $10 \div 3 =$ _____

11) $4/10 =$ _____

12) $12/19 =$ _____

13) $71 \div 22 =$ _____

14) $12/23 =$ _____

15) $94 \div 12 =$ _____

1. _____

2. _____

3. _____

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Answers1. **R**2. **R**3. **T**4. **R**5. **R**6. **R**7. **T**8. **R**9. **R**10. **R**11. **T**12. **R**13. **R**14. **R**15. **R**