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).

$\frac{6}{40} = \frac{3}{20} = 2\times2\times5 = 0.15$

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.

$\frac{5}{42} = 2\times3\times7 = 0.1\overline{190476}$

1) $136 \div 19 =$ _____

2) $\frac{7}{26} =$ _____

3) $8 \div 3 =$ _____

4) $\frac{5}{23} =$ _____

5) $79 \div 13 =$ _____

6) $\frac{6}{12} =$ _____

7) $48 \div 21 =$ _____

8) $\frac{24}{27} =$ _____

9) $\frac{8}{29} =$ _____

10) $\frac{5}{30} =$ _____

11) $172 \div 28 =$ _____

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

13) $36 \div 11 =$ _____

14) $\frac{2}{8} =$ _____

15) $\frac{8}{16} =$ _____

Answers

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

1-10	93	87	80	73	67	60	53	47	40	33
11-15	27	20	13	7	0					

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$\frac{5}{42} = 2\times3\times7 = 0.1\overline{190476}$

1) $136 \div 19 =$ 19

2) $\frac{7}{26} =$ 2×13

3) $8 \div 3 =$ 3

4) $\frac{5}{23} =$ 23

5) $79 \div 13 =$ 13

6) $\frac{6}{12} =$ 2

7) $48 \div 21 =$ 7

8) $\frac{24}{27} =$ 3×3

9) $\frac{8}{29} =$ 29

10) $\frac{5}{30} =$ 2×3

11) $172 \div 28 =$ 7

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

13) $36 \div 11 =$ 11

14) $\frac{2}{8} =$ 2×2

15) $\frac{8}{16} =$ 2

Answers

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

1-10	93	87	80	73	67	60	53	47	40	33
11-15	27	20	13	7	0					