

1.5

Divisibility Rules For Simplifying Fractions

Name _____

A number is divisible by

- 2 if it is even ← last digit is 0, 2, 4, 6, 8
- 3 if the sum of its digits is divisible by 3 ↖ similar rule
- 5 if its last digit is 0 or 5 ↖ similar rule
- 9 if the sum of its digits is divisible by 9 ↖ similar rule
- 10 if its last digit is 0

1. Is 930 divisible by $9 + 3 + 0 = 12$

2? *yes*

3? *yes*

5? *yes*

9? *no*

10? *yes*

2. Is -783 divisible by $7 + 8 + 3 = 18$

2? *no*

3? *yes*

5? *no*

9? *yes*

10? *no*

3. Is 43,905 divisible by $4 + 3 + 9 + 5 = 21$

2? *no*

3? *yes*

5? *yes*

9? *no*

10? *no*

4. Is 16,312 divisible by

2? *yes*

3? *no*

5? *no*

9? *no*

10? *no*

$$1 + 6 + 3 + 1 + 2 = 13$$

5. How are the divisibility rules useful for working with fractions?

They are helpful to reduce fractions

$$\frac{96}{102} = \frac{48}{51} = \frac{16}{17}$$