

Reciprocal For Negatives Answer Key

1. $2^{-1} = \frac{1}{2}$

$$2^{-2} = \frac{1}{4}$$

$$2^{-3} = \frac{1}{8}$$

2. $5^{-1} = \frac{1}{5}$

$$5^{-2} = \frac{1}{25}$$

3. $10^{-1} = \frac{1}{10}$

$$10^{-2} = \frac{1}{100}$$

$$10^{-3} = \frac{1}{1000}$$

4. reciprocal

$$7^{-2} = \frac{1}{7^2}$$

Reciprocal forms:

- $2^{-1} = \frac{1}{2^1}$

- $2^{-2} = \frac{1}{2^2}$

- $2^{-3} = \frac{1}{2^3}$

Reciprocal forms:

- $5^{-1} = \frac{1}{5^1}$

- $5^{-2} = \frac{1}{5^2}$

Reciprocal forms:

- $10^{-1} = \frac{1}{10^1}$

- $10^{-2} = \frac{1}{10^2}$

- $10^{-3} = \frac{1}{10^3}$

Teacher's Guide

- Quick implementation tips
 - o Have students complete each table from top to bottom before discussing the pattern.
 - o Encourage students to explain why each value is divided by the base as the exponent decreases.
- Differentiation strategies
 - o Provide a calculator for students who need support checking fraction values.
 - o Challenge advanced students to create a similar table for another base such as 3 or 8.
- Engagement ideas
 - o Ask students to predict the next value before filling in each row.
 - o Have partners compare their discovered rule before sharing with the class.