

## Negative Integer Exponent

### A. Choose the Correct Answer:

1. The value of  $\left(\frac{2}{3}\right)^{-2}$  is:

a)  $\frac{4}{9}$

b)  $\frac{9}{4}$

c)  $\frac{2}{9}$

d)  $\frac{3}{2}$

2.  $\left(\frac{5}{7}\right)^{-1}$  is equal to:

a)  $\frac{7}{5}$

b)  $\frac{5}{7}$

c)  $\frac{1}{35}$

d)  $\frac{7}{1}$

3. The value of  $\left(\frac{3}{4}\right)^{-2}$  is:

a)  $\frac{9}{16}$

b)  $\frac{16}{9}$

c)  $\frac{4}{9}$

d)  $\frac{3}{16}$

4.  $\left(\frac{2}{5}\right)^{-3}$  is:

a)  $\frac{8}{125}$

b)  $\frac{125}{8}$

c)  $\frac{8}{25}$

d)  $\frac{5}{2}$

5.  $\left(\frac{7}{9}\right)^{-2}$  is equal to:

a)  $\frac{81}{49}$

b)  $\frac{49}{81}$

c)  $\frac{7}{9}$

d)  $\frac{9}{7}$

### B. Write the Missing Terms to Complete the Sentences:

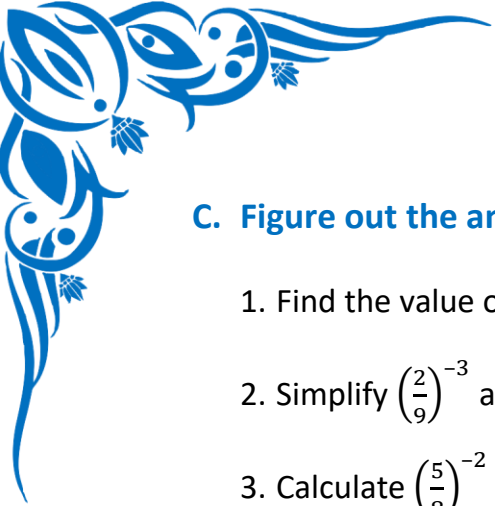
1.  $\left(\frac{a}{b}\right)^{-n} = \frac{\dots}{a^n}$

2.  $\left(\frac{3}{5}\right)^{-2} = \frac{\dots}{9}$

3.  $\left(\frac{2}{7}\right)^{-1} = \underline{\hspace{2cm}}$

4. Negative exponent indicates taking the \_\_\_\_\_ of the positive power

5.  $\left(\frac{5}{8}\right)^{-3} = \frac{\dots}{125}$



**C. Figure out the answers to these questions:**

1. Find the value of  $\left(\frac{4}{5}\right)^{-2}$
2. Simplify  $\left(\frac{2}{9}\right)^{-3}$  and express it as a fraction
3. Calculate  $\left(\frac{5}{8}\right)^{-2}$
4. Find  $\left(\frac{7}{11}\right)^{-1}$
5. Evaluate  $\left(\frac{3}{7}\right)^{-3}$

**D. Mark each sentence with a True (✓) or False (X):**

1.  $\left(\frac{a}{b}\right)^{-n} = \left(\frac{b}{a}\right)^n$ . \_\_\_\_\_
2.  $\left(\frac{2}{3}\right)^{-2} = \left(\frac{3}{2}\right)^2$ . \_\_\_\_\_
3.  $\left(\frac{5}{7}\right)^{-2} = \frac{25}{49}$ . \_\_\_\_\_
4. Negative exponents change the fraction by swapping numerator and denominator. \_\_\_\_\_
5.  $\left(\frac{1}{2}\right)^{-3} = 2^3$ . \_\_\_\_\_

**E. Challenge yourself with these questions:**

1. Find the value of  $\left(\frac{5}{6}\right)^{-3}$
2. Simplify  $\left(\frac{3}{8}\right)^{-2}$  and write as a fraction
3. Calculate  $\left(\frac{4}{9}\right)^{-3}$
4. Find the reciprocal of  $\left(\frac{2}{5}\right)^2$
5. Evaluate  $\left(\frac{7}{10}\right)^{-2}$