Pre-Algebra Workbook

Fractions

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FRACTIONS

- 1. What is the denominator of the fraction $3/5$?

- 2. How would we write $40\,\%$ as a fraction?

- 3. How would we write $75\,\%$ as a fraction?

- 4. If a pizza is cut into 6 equal pieces and Ben eats 2 of them, what fraction of the pizza did Ben eat?

- 5. Hazel is cleaning out her closet. She has 8 sweaters and 2 of them are blue. What fraction of her sweaters are blue?

- 6. Joey cuts a pie into 10 equal slices and eats 1 slice. What fraction of the pie did he eat?

SIMPLIFYING FRACTIONS AND EQUIVALENT FRACTIONS

- 1. Write $20/50$ as a simplified fraction.

- 2. Write the fraction $4/5$ in terms of 20ths.

- 3. Write $110/154$ as a simplified fraction.

- 4. Are the fractions $3/15$ and $6/36$ equivalent?

- 5. Are the fractions $2/16$ and $4/32$ equivalent?

- 6. When using prime factorization to reduce fractions, we're looking for the numbers in the numerator and denominator that are the _____ prime number.

DIVISION OF ZERO

■ 1. The fraction $0/7$ means _____ divided by _____.

■ 2. The number _____ can never be the denominator of a fraction.

■ 3. The fraction $0/8$ has a value of _____.

■ 4. True or false? $5/0$ has a value of 0.

■ 5. Complete the statement.

$6 \cdot 0 = 0$ and $0 \div 6 =$ _____.

■ 6. Complete the statement of why we can't divide by 0.

$7 \div 0$ means that that something times 0 has a value equal to 7. But there's nothing times 0 that will ever equal 7 because anything times 0 will always equal _____. Therefore, it's impossible to divide by 0.

ADDING AND SUBTRACTING FRACTIONS

■ 1. When we add or subtract fractions, we'll add or subtract the _____ and the _____ will stay the same.

■ 2. Find the sum.

$$\frac{1}{9}+\frac{3}{9}$$

■ 3. Find the difference.

$$\frac{7}{12}-\frac{2}{6}$$

■ 4. Find the sum.

$$\frac{1}{16}+\frac{3}{4}+\frac{5}{8}$$

■ 5. Simplify the expression.

$$\frac{7}{10}-\frac{1}{10}+\frac{2}{5}$$

6. Simplify the expression.

$$\frac{2}{15}+\frac{1}{5}-\frac{1}{30}$$

MULTIPLYING AND DIVIDING FRACTIONS

■ 1. When we're dividing fractions, we need to flip the _____ fraction.

■ 2. Simplify the expression.

$$\frac{4}{7} \cdot \frac{2}{9}$$

■ 3. Simplify the expression.

$$\frac{5}{8} \div \frac{1}{12}$$

■ 4. Simplify the expression.

$$\frac{2}{9} \div \frac{1}{15}$$

■ 5. Simplify the expression.

$$\frac{1}{10} \cdot \frac{2}{5} \div \frac{1}{4}$$

6. Simplify the expression.

$$\frac{3}{5} \div \frac{1}{6} \cdot \frac{4}{9}$$

SIGNS OF FRACTIONS

■ 1. Is the statement true or false?

$-\frac{1}{6}$ is equivalent to $\frac{-6}{1}$.

■ 2. Is the statement true or false?

$-\frac{3}{4}$ is equivalent to $\frac{3}{-4}$.

■ 3. Simplify the expression.

$$\frac{2}{11} \cdot -\frac{1}{4}$$

■ 4. Simplify the expression.

$$-\frac{3}{20} \cdot -\frac{2}{13}$$

■ 5. Simplify the expression.

$$\frac{4}{7} \div -\frac{3}{11}$$

■ 6. If the numerator and the denominator are both negative, the fraction will be _____.

RECIPROCALS

1. A reciprocal is what we get when we _____ the fraction.

2. What is the reciprocal of $-1/2$?

3. What is the reciprocal of 3?

4. What is the reciprocal of $-1/4$?

5. The only number that does not have a reciprocal is _____.

6. When we multiply two numbers that are reciprocals of one another, the result is always _____.

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