

Pre-Algebra Workbook

Fractions



FRACTIONS

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

- \blacksquare 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 _____.
- \blacksquare 4. True or false? 5/0 has a value of 0.
- 5. Complete the statement.

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

 \blacksquare 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.

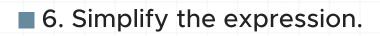
$$\frac{7}{12} - \frac{2}{6}$$

■ 4. Find the sum.

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

■ 5. Simplify the expression.

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



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



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.

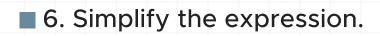
$$\frac{5}{8} \div \frac{1}{12}$$

■ 4. Simplify the expression.

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

■ 5. Simplify the expression.

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



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



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 tl	he numera	ator and t	he deno	minator a	are both r	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 ______.



