



Pre-Algebra Workbook

Mixed numbers

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MATH

MIXED NUMBERS AND IMPROPER FRACTIONS

■ 1. Mixed numbers are a representation of what operation (addition, subtraction, multiplication, division)?

■ 2. Convert $15/4$ into a mixed number.

■ 3. Convert $34/6$ into a mixed number.

■ 4. Write $-114/25$ as a mixed number.

■ 5. Convert the mixed number into an improper fraction.

$$-2\frac{1}{6}$$

■ 6. Convert the mixed number into an improper fraction.

$$8\frac{4}{9}$$



ADDING AND SUBTRACTING MIXED NUMBERS

- 1. Simplify the expression.

$$5\frac{2}{3} + 1\frac{1}{12}$$

- 2. Simplify the expression.

$$8\frac{7}{8} - 2\frac{1}{8}$$

- 3. Simplify the expression.

$$7\frac{4}{5} - 6\frac{1}{15}$$

- 4. Simplify the expression.

$$15\frac{1}{2} - 11\frac{1}{4}$$

- 5. Joey and Alex are both solving the following problem.

$$2\frac{1}{3} + 1\frac{3}{5}$$



Joey takes $2 + 1 = 3$ and then takes

$$\frac{1}{3} + \frac{3}{5} = \frac{14}{15}$$

Then he adds them together to get

$$3\frac{14}{15}$$

Alex decides to change both into improper fractions before adding. He gets

$$2\frac{1}{3} = \frac{7}{3} \text{ and } 1\frac{3}{5} = \frac{8}{5}$$

Then she finds common denominators and adds them together to get

$$\frac{59}{15}$$

Who solved this problem correctly?

■ 6. Simplify the expression.

$$3\frac{2}{5} + \frac{3}{10} - 2\frac{3}{5}$$



MULTIPLYING AND DIVIDING MIXED NUMBERS

■ 1. When we multiply and divide mixed numbers, we need to change the mixed numbers into _____ fractions before we do the multiplication or division.

■ 2. Simplify the expression.

$$3\frac{3}{7} \cdot 1\frac{1}{7}$$

■ 3. Simplify the expression.

$$5\frac{1}{5} \cdot 2\frac{2}{3}$$

■ 4. Simplify the expression.

$$2\frac{3}{4} \div 5\frac{1}{8}$$

■ 5. Simplify the expression.

$$4\frac{5}{9} \div 2\frac{1}{4}$$



■ 6. Simplify the expression.

$$1\frac{4}{5} \div 3\frac{3}{8}$$



RELATIONSHIPS OF NUMBERS

- 1. Which fraction is larger?

$$\frac{1}{8} \text{ or } \frac{1}{6}$$

- 2. Which fraction is smaller?

$$\frac{3}{7} \text{ or } \frac{3}{8}$$

- 3. Find a number that's $\frac{1}{5}$ of the way from $\frac{3}{10}$ to $\frac{2}{5}$.

- 4. Find a number that's $\frac{2}{3}$ of the way from $-\frac{2}{3}$ to $\frac{1}{4}$.

- 5. Find the fraction halfway between $\frac{1}{2}$ and $\frac{2}{5}$.

- 6. Find the fraction halfway between $\frac{1}{10}$ and $\frac{8}{13}$.



ADDING MIXED MEASURES

- 1. Add the mixed measures.

4 seconds, 11 minutes, 3 hours, 35 minutes, 56 minutes, 35 seconds

- 2. Add the mixed measures.

34 inches, 2 yards, 5 feet, 8 inches, 13 feet, 1 yard

- 3. Add the mixed measures.

25 seconds, 1 hour, 15 minutes, 45 seconds, 22 minutes

- 4. Add the mixed measures.

13 inches, 45 feet, 35 inches, 27 feet, 9 yards

- 5. Add the mixed measures.

1 foot, 38 inches

- 6. Add the mixed measures.



1 hour, 85 minutes, 55 seconds, 20 minutes



