

Multiply Mixed Numbers

Name: _____

Grade 5 · Change mixed numbers to improper fractions, multiply, and change back

How it works

$$1\frac{1}{2} \times 2\frac{1}{3} = \frac{3}{2} \times \frac{7}{3} = \frac{21}{6} = 3\frac{1}{2}$$

1. Change each mixed number to an improper fraction.
2. Multiply the numerators and the denominators.
3. Write the product as a mixed number in simplest form.

A. Multiply. Show each step. Write the last answer as a mixed number in simplest form.

1.

$$1\frac{1}{2} \times \frac{3}{4} = \frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}}$$
$$= \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

2.

$$2\frac{1}{3} \times \frac{1}{2} = \frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}}$$
$$= \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

3.

$$3\frac{1}{2} \times \frac{3}{5} = \frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}}$$
$$= \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

4.

$$1\frac{1}{2} \times 1\frac{1}{4} = \frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}}$$
$$= \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

5.

$$2\frac{1}{2} \times 1\frac{1}{3} = \frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}}$$
$$= \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

6.

$$1\frac{2}{3} \times 2\frac{1}{4} = \frac{\boxed{}}{\boxed{}} \times \frac{\boxed{}}{\boxed{}}$$
$$= \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

B. Solve. Write each answer as a mixed number in simplest form.

1. A garden bed is $2\frac{1}{2}$ yards long and $1\frac{1}{4}$ yards wide. What is its area?

Answer: $\boxed{} \frac{\boxed{}}{\boxed{}}$ square yards

2. One batch of pancakes uses $1\frac{3}{4}$ cups of flour. How many cups of flour do $2\frac{1}{2}$ batches use?

Answer: $\boxed{} \frac{\boxed{}}{\boxed{}}$ cups

Multiply Mixed Numbers (Answer Key)

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$$1\frac{1}{2} \times 2\frac{1}{3} = \frac{3}{2} \times \frac{7}{3} = \frac{21}{6} = 3\frac{1}{2}$$

1. Change each mixed number to an improper fraction.
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A. Multiply. Show each step. Write the last answer as a mixed number in simplest form.

1.

$$1\frac{1}{2} \times \frac{3}{4} = \frac{\boxed{3}}{\boxed{2}} \times \frac{\boxed{3}}{\boxed{4}}$$
$$= \frac{\boxed{9}}{\boxed{8}} = \boxed{1} \frac{\boxed{1}}{\boxed{8}}$$

2.

$$2\frac{1}{3} \times \frac{1}{2} = \frac{\boxed{7}}{\boxed{3}} \times \frac{\boxed{1}}{\boxed{2}}$$
$$= \frac{\boxed{7}}{\boxed{6}} = \boxed{1} \frac{\boxed{1}}{\boxed{6}}$$

3.

$$3\frac{1}{2} \times \frac{3}{5} = \frac{\boxed{7}}{\boxed{2}} \times \frac{\boxed{3}}{\boxed{5}}$$
$$= \frac{\boxed{21}}{\boxed{10}} = \boxed{2} \frac{\boxed{1}}{\boxed{10}}$$

4.

$$1\frac{1}{2} \times 1\frac{1}{4} = \frac{\boxed{3}}{\boxed{2}} \times \frac{\boxed{5}}{\boxed{4}}$$
$$= \frac{\boxed{15}}{\boxed{8}} = \boxed{1} \frac{\boxed{7}}{\boxed{8}}$$

5.

$$2\frac{1}{2} \times 1\frac{1}{3} = \frac{\boxed{5}}{\boxed{2}} \times \frac{\boxed{4}}{\boxed{3}}$$
$$= \frac{\boxed{20}}{\boxed{6}} = \boxed{3} \frac{\boxed{1}}{\boxed{3}}$$

6.

$$1\frac{2}{3} \times 2\frac{1}{4} = \frac{\boxed{5}}{\boxed{3}} \times \frac{\boxed{9}}{\boxed{4}}$$
$$= \frac{\boxed{45}}{\boxed{12}} = \boxed{3} \frac{\boxed{3}}{\boxed{4}}$$

B. Solve. Write each answer as a mixed number in simplest form.

1. A garden bed is $2\frac{1}{2}$ yards long and $1\frac{1}{4}$ yards wide. What is its area?

$$2\frac{1}{2} \times 1\frac{1}{4} = \frac{25}{8} = 3\frac{1}{8}$$

Answer: $\boxed{3} \frac{\boxed{1}}{\boxed{8}}$ square yards

2. One batch of pancakes uses $1\frac{3}{4}$ cups of flour. How many cups of flour do $2\frac{1}{2}$ batches use?

$$1\frac{3}{4} \times 2\frac{1}{2} = \frac{35}{8} = 4\frac{3}{8}$$

Answer: $\boxed{4} \frac{\boxed{3}}{\boxed{8}}$ cups