

Ex. 1: $\frac{1}{2} \times \frac{2}{3} = \frac{2}{6}$ this product can be canceled. Divide the numbers in the fraction by 2 to get the canceled answer $\frac{2 \div 2}{6 \div 2} = \frac{1}{3}$.

The fractions in Ex. 1 can cancel before they are multiplied.

Ex. 1: $\frac{1}{\cancel{2}} \times \frac{\cancel{2}}{3} = \frac{1}{3}$

The 2's cancel by dividing by 2. Cross them out and place 1's close by. Now multiply the top numbers together, then the bottom numbers. The product is the final answer.

Ex. 2: $\frac{35}{40} \times \frac{100}{1000}$ can be rewritten as $\frac{\cancel{35}^7}{\cancel{40}_8} \times \frac{\cancel{100}^1}{\cancel{1000}_{10}} = \frac{7}{8} \times \frac{1}{10} = \frac{7}{80}$

Cancel by dividing by 5. Then cancel by dividing by 100. Multiply and get the product.

Ex. 3: $3 \times \frac{1}{3}$ can be written like $\frac{\cancel{3}^1}{1} \times \frac{1}{\cancel{3}_1} = \frac{1}{1} = 1$ Cancel by dividing by 3. Finally, multiply to find the product.

Multiplying Mixed Numbers

Change mixed numbers into improper fractions then multiply as before.

Ex. 1: $2\frac{1}{2} \times 3\frac{1}{3} = \frac{5}{2} \times \frac{10}{3} = \frac{25}{3} = 8\frac{1}{3}$

Change the mixed numbers to improper fractions by:

$2\frac{1}{2} = \frac{2 \times 2 + 1}{2} = \frac{4 + 1}{2} = \frac{5}{2}$

- 1) multiplying the bottom number by the whole number
- 2) add the top number
- 3) keep the bottom number.

Cancel top and bottom. Multiply. Improper fractions simplify by dividing.

Ex. 2: $4\frac{1}{4} \times 6 = \frac{17}{4} \times \frac{6}{1} = \frac{51}{2} = 25\frac{1}{2}$ Change the mixed number into an improper fraction. Change the whole number into an improper fraction. Cancel. Multiply. Simplify to get the quotient.