Multiplying mixed numbers

Multiply mixed numbers by whole numbers
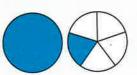
Multiply these mixed numbers using the diagrams to help you.
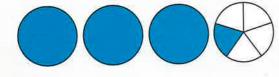Write your answer as a mixed number.

a $3\frac{1}{3} \times 2$

b $2\frac{1}{4} \times 4$

c $1\frac{1}{5} \times 6$

d $2\frac{1}{6} \times 5$

e $3\frac{1}{5} \times 4$

f $2\frac{1}{8} \times 5$

g $3\frac{1}{7} \times 6$

h $2\frac{1}{10} \times 8$

Example

$1\frac{1}{7} \times 2$ ⬤ 🔵 $= 2\frac{2}{7}$

Remember to put the fractions together to make wholes.

Challenge 2

1 Multiply these mixed numbers.

a $2\frac{2}{3} \times 4$ b $3\frac{2}{5} \times 3$

c $2\frac{4}{6} \times 5$ d $3\frac{3}{4} \times 4$

e $3\frac{2}{7} \times 5$ f $4\frac{3}{5} \times 6$

g $5\frac{2}{7} \times 4$ h $2\frac{6}{8} \times 5$

i $4\frac{3}{5} \times 8$ j $6\frac{3}{4} \times 7$

k $5\frac{1}{2} \times 3$ l $4\frac{2}{6} \times 7$

m $7\frac{2}{5} \times 3$ n $8\frac{1}{9} \times 6$

How to multiply mixed numbers:

- Change the mixed number to an improper fraction.
- Next, change the whole number to a fraction.
- Then, multiply the numerators.
- Then, multiply the denominators.
- Finally, convert your answer back to a mixed number.

Example

$2\frac{3}{4} \times 3 = \frac{11}{4} \times 3 = \frac{11}{4} \times \frac{3}{1} = \frac{11 \times 3}{4 \times 1} = \frac{33}{4} = 8\frac{1}{4}$

2 A mixed number has been multiplied by 4. The answer is $7\frac{6}{8}$. What was the mixed number?

3 A group of 4 friends have 11 bananas to share. One person says we can all have $2\frac{4}{6}$ each, another person says we can all have $2\frac{9}{12}$ each. Who is right? How do you know?

Challenge 3

1 Multiply these mixed numbers.

a $4\frac{5}{6} \times 3$ b $3\frac{4}{8} \times 5$ c $4\frac{5}{9} \times 4$ d $5\frac{2}{7} \times 6$

e $3\frac{3}{5} \times 7$ f $4\frac{2}{3} \times 8$ g $2\frac{3}{10} \times 4$ h $5\frac{4}{7} \times 5$

2 Choose two of the calculations from Question 1 and write a word problem to go with them.