

## Varied Fluency

### Step 17: Multiply Non-Unit Fractions by an Integer

#### National Curriculum Objectives:

Mathematics Year 5: (5F5) [Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams](#)

Mathematics Year 5: (5F2a) [Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements  \$> 1\$  as a mixed number \[for example,  \$2/5 + 4/5 = 6/5 = 1 \frac{1}{5}\$ \]](#)

Mathematics Year 5: (5F2b) [Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths](#)

#### Differentiation:

**Developing** Questions to support multiplying non-unit fractions by integers. Images provided for support.

**Expected** Questions to support multiplying non-unit fractions by integers. Fractions may need to be reduced to their simplest form using knowledge of equivalent fractions or improper fractions converted to mixed numbers. Images provided for support.

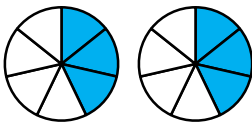
**Greater Depth** Questions to support multiplying non-unit fractions by integers. Fractions will need to be reduced to their simplest form using knowledge of equivalent fractions and improper fractions converted to mixed numbers. No images provided.

More [Year 5 and Year 6 Fractions](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

## Multiply Non-Unit Fractions by an Integer

1a. Match the calculation to the correct answer.

$$\frac{3}{7} \times 2 =$$


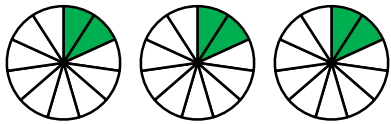
- A.  $\frac{6}{7}$     B.  $\frac{12}{14}$     C.  $\frac{3}{14}$



5 VF

## Multiply Non-Unit Fractions by an Integer

1b. Match the calculation to the correct answer.

$$\frac{2}{11} \times 3 =$$


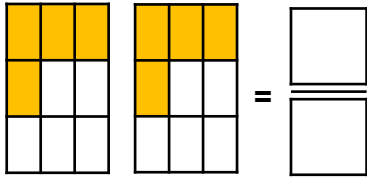
- A.  $\frac{11}{6}$     B.  $\frac{6}{33}$     C.  $\frac{6}{11}$



5 VF

2a. Solve the calculation below.

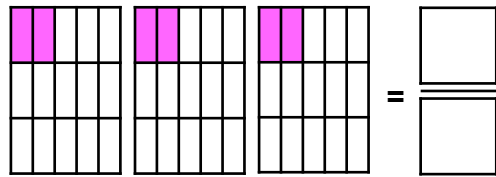
$$\frac{4}{9} \times 2 =$$



5 VF

2b. Solve the calculation below.

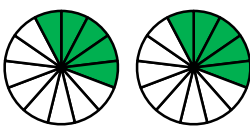
$$\frac{2}{15} \times 3 =$$



5 VF

3a. True or false?

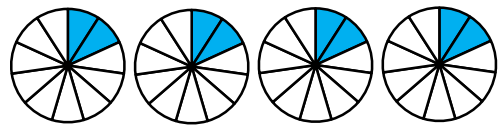
$$\frac{5}{13} \times 2 = \frac{10}{26}$$



5 VF

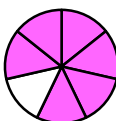
3b. True or false?

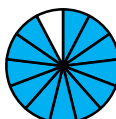
$$\frac{2}{11} \times 4 = \frac{8}{11}$$



5 VF

4a. Complete the calculations.


A.  $\frac{3}{7} \times \square =$  

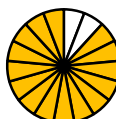
B.  $\frac{2}{13} \times \square =$  



5 VF

4b. Complete the calculations.

A.  $\frac{4}{15} \times \square =$  

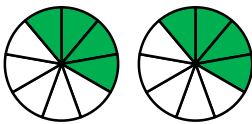
B.  $\frac{3}{17} \times \square =$  



5 VF

## Multiply Non-Unit Fractions by an Integer

5a. Match the calculation to the correct answer.

$$\frac{4}{9} \times 2 =$$


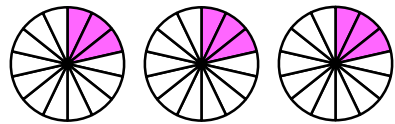
- A.  $\frac{8}{18}$     B.  $\frac{8}{9}$     C.  $\frac{4}{18}$



5 VF

## Multiply Non-Unit Fractions by an Integer

5b. Match the calculation to the correct answer.

$$\frac{3}{14} \times 3 =$$


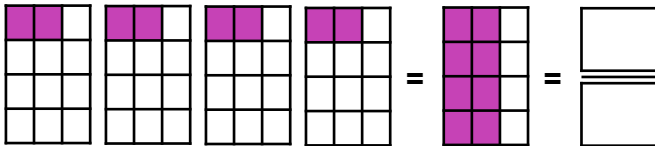
- A.  $\frac{3}{42}$     B.  $\frac{9}{42}$     C.  $\frac{9}{14}$



5 VF

6a. Solve the calculation below and reduce the answer to its simplest form.

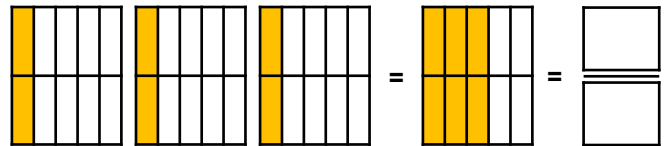
$$\frac{2}{12} \times 4 =$$



5 VF

6b. Solve the calculation below and reduce the answer to its simplest form.

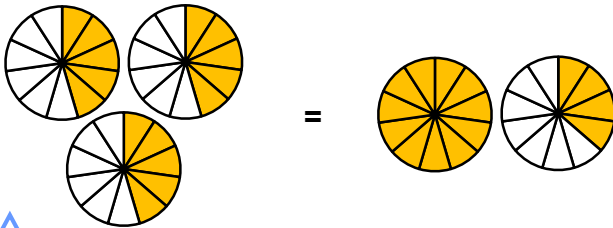
$$\frac{2}{10} \times 3 =$$



5 VF

7a. True or false?

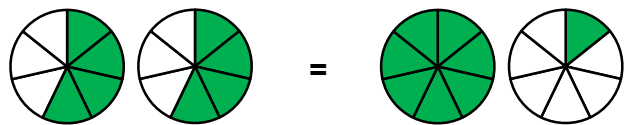
$$\frac{5}{11} \times 3 = \frac{15}{11} = 1 \frac{4}{11}$$



5 VF

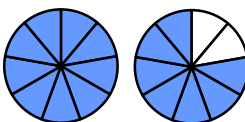
7b. True or false?

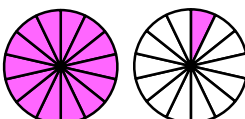
$$\frac{4}{7} \times 2 = \frac{8}{7} = 1 \frac{8}{14}$$



5 VF

8a. Complete the calculations. Give your answer as a mixed number.

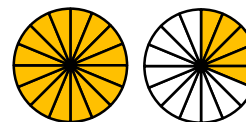
A.  $\frac{4}{9} \times \square =$    $= \square$

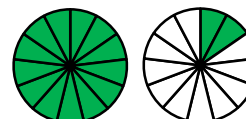
B.  $\frac{5}{14} \times \square =$    $= \square$



5 VF

8b. Complete the calculations. Give your answer as a mixed number.

A.  $\frac{7}{16} \times \square =$    $= \square$

B.  $\frac{3}{13} \times \square =$    $= \square$



5 VF

## Multiply Non-Unit Fractions by an Integer

## Multiply Non-Unit Fractions by an Integer

9a. Match the calculation to the correct answer.

$$\frac{5}{13} \times 3 = \frac{\square}{\square}$$

- A.  $1\frac{1}{13}$     B.  $1\frac{2}{39}$     C.  $1\frac{2}{13}$



5 VF

9b. Match the calculation to the correct answer.

$$\frac{3}{11} \times 5 = \frac{\square}{\square}$$

- A.  $2\frac{4}{11}$     B.  $1\frac{4}{11}$     C.  $1\frac{1}{11}$



5 VF

10a. Solve the calculations below and reduce each answer to its simplest form.

A.  $\frac{2}{16} \times 2 = \frac{\square}{\square} = \frac{\square}{\square}$

B.  $\frac{2}{18} \times 3 = \frac{\square}{\square} = \frac{\square}{\square}$



5 VF

10b. Solve the calculations below and reduce each answer to its simplest form.

A.  $\frac{4}{24} \times 2 = \frac{\square}{\square} = \frac{\square}{\square}$

B.  $\frac{3}{14} \times 4 = \frac{\square}{\square} = \frac{\square}{\square}$



5 VF

11a. True or false?

A.  $\frac{6}{16} \times 3 = \frac{18}{16} = 1\frac{2}{16} = 1\frac{1}{8}$

B.  $\frac{4}{15} \times 5 = \frac{20}{15} = 2\frac{5}{15} = 2\frac{1}{3}$



5 VF

11b. True or false?

A.  $\frac{4}{18} \times 6 = \frac{24}{18} = 1\frac{6}{18} = 1\frac{1}{2}$

B.  $\frac{4}{20} \times 6 = \frac{24}{20} = 1\frac{4}{20} = 1\frac{1}{5}$



5 VF

12a. Complete the calculations. Give your answer as a mixed number and reduce your answer to its simplest form.

$$\frac{5}{8} \times 4 = \frac{\square}{\square} = \square \frac{\square}{\square} = \square \frac{\square}{\square}$$



5 VF

12b. Complete the calculations. Give your answer as a mixed number and reduce your answer to its simplest form.

$$\frac{6}{9} \times 5 = \frac{\square}{\square} = \square \frac{\square}{\square} = \square \frac{\square}{\square}$$



5 VF

Varied Fluency  
Multiply Non-Unit Fractions by an Integer

Developing

- 1a. **A**  
2a.  $\frac{8}{9}$   
3a. **False. The answer should be  $\frac{10}{13}$ .**  
4a. **A. 2      B. 6**

Expected

- 5a. **B**  
6a.  $\frac{2}{3}$   
7a. **True**  
8a. **A.  $1\frac{7}{9}$       B.  $1\frac{1}{14}$**

Greater Depth

- 9a. **C**  
10a. **A.  $\frac{4}{16} = \frac{1}{4}$       B.  $\frac{6}{18} = \frac{1}{3}$**   
11a. **A. True      B. False. The answer is  $1\frac{1}{3}$ .**  
12a.  $\frac{20}{8} = 2\frac{4}{8} = 2\frac{1}{2}$

Varied Fluency  
Multiply Non-Unit Fractions by an Integer

Developing

- 1b. **C**  
2b.  $\frac{6}{15}$   
3b. **True**  
4b. **A. 3      B. 5**

Expected

- 5b. **C**  
6b.  $\frac{3}{5}$   
7b. **False. The answer is  $1\frac{1}{7}$ .**  
8b. **A.  $1\frac{5}{16}$       B.  $1\frac{2}{13}$**

Greater Depth

- 9b. **B**  
10b. **A.  $\frac{8}{24} = \frac{1}{3}$       B.  $\frac{12}{14} = \frac{6}{7}$**   
11b. **A. False. The answer is  $1\frac{1}{3}$ .      B. True**  
12b.  $\frac{30}{9} = 3\frac{3}{9} = 3\frac{1}{3}$