

# Varied Fluency

## Step 10: Multiply Fractions by Integers

### National Curriculum Objectives:

Mathematics Year 6: (6F2) [Use common factors to simplify fractions; use common multiples to express fractions in the same denomination](#)

Mathematics Year 6: (6F3) [Compare and order fractions, including fractions > 1](#)

Mathematics Year 6: (6F4) [Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions](#)

Mathematics Year 6: (6F5a) [Multiply simple pairs of proper fractions, writing the answer in its simplest form \[for example,  \$1/4 \times 1/2 = 1/8\$ \]](#)

### Differentiation:

**Developing** Questions to support multiplying proper fractions and mixed numbers by integers. Pictorial support given for every question.

**Expected** Questions to support multiplying proper fractions and mixed numbers by integers using times table knowledge. Answers allow for improper fractions and mixed numbers. Includes a mixture of pictorial support and written questions.

**Greater Depth** Questions to support multiplying proper fractions, improper fractions and mixed numbers by integers. Children create their own pictorial representations. Answers must be a simplified mixed number.

More [Year 6 Fractions](#) resources.

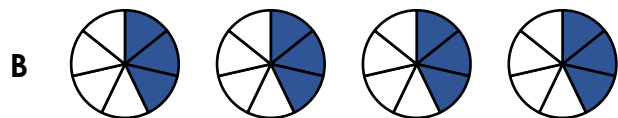
Did you like this resource? Don't forget to [review](#) it on our website.

# Multiply Fractions by Integers

# Multiply Fractions by Integers

1a. Which set of pictures shows the calculation below?

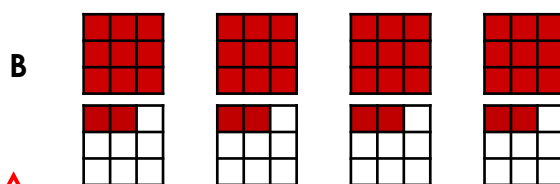
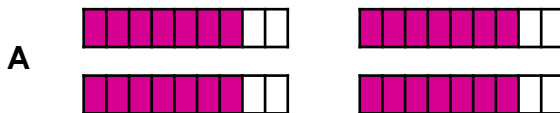
$$\frac{3}{7} \times 3$$



VF

1b. Which set of pictures shows the calculation below?

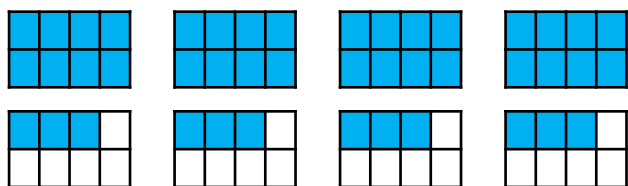
$$4 \times 1\frac{2}{9}$$



VF

2a. Use the image below to find the answer to the calculation.

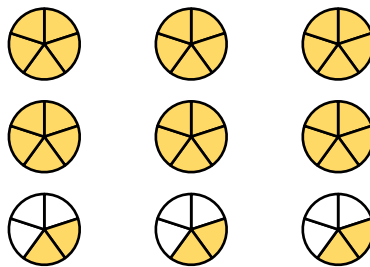
$$1\frac{3}{8} \times 4 = \square$$



VF

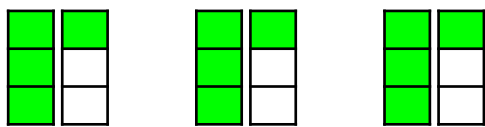
2b. Use the image below to find the answer to the calculation.

$$2\frac{2}{5} \times 5 = \square$$



VF

3a. Complete the statement based on the image below.

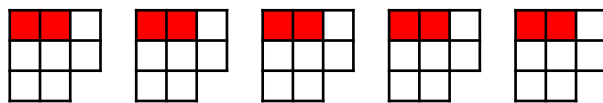


There are \_\_\_ lots of \_\_\_ .



VF

3b. Complete the statement based on the image below.



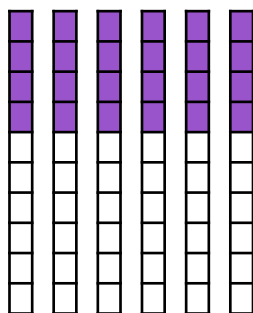
There are \_\_\_ lots of \_\_\_ .



VF

4a. True or false?

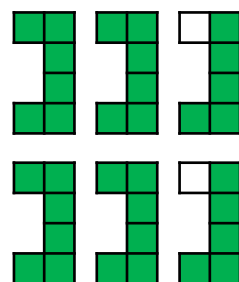
$$6 \times \frac{4}{11} <$$



VF

4b. True or false?

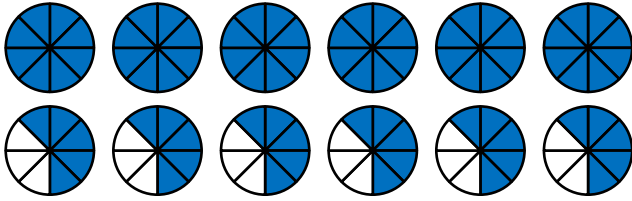
$$2 \times 2\frac{5}{6} =$$



VF

## Multiply Fractions by Integers

5a. Which calculation is represented by the image below?



A.  $1 \frac{5}{8} \times 6$

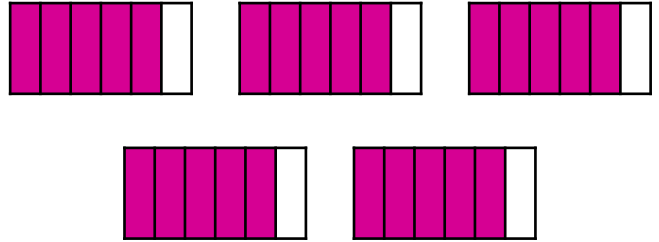
B.  $\frac{5}{8} \times 5$



VF

## Multiply Fractions by Integers

5b. Which calculation is represented by the image below?



A.  $\frac{4}{5} \times 6$

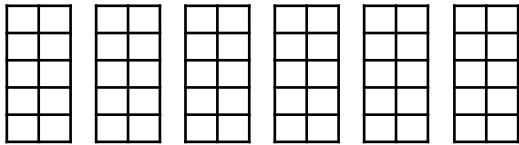
B.  $\frac{5}{6} \times 5$



VF

6a. Shade in the image below to find the answer to the calculation.

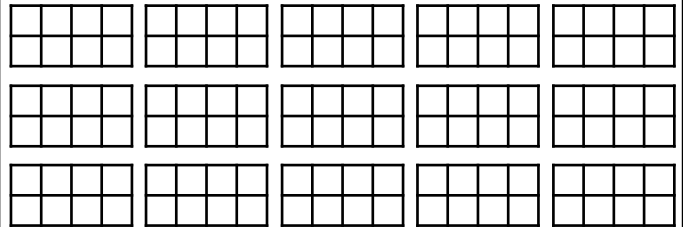
$$\frac{6}{10} \times 6 = \square$$



VF

6b. Shade in the image below to find the answer to the calculation.

$$2 \frac{7}{8} \times 5 = \square$$



VF

7a. Answer the question below.

What are 6 lots of  $2 \frac{5}{11}$  ?



VF

7b. Answer the question below.

What are 9 lots of  $\frac{12}{13}$  ?



VF

8a. True or false?

$$7 \times 1 \frac{4}{9} > 3 \frac{5}{6} \times 2$$



VF

8b. True or false?

$$4 \times 2 \frac{7}{8} = \frac{15}{16} \times 11$$

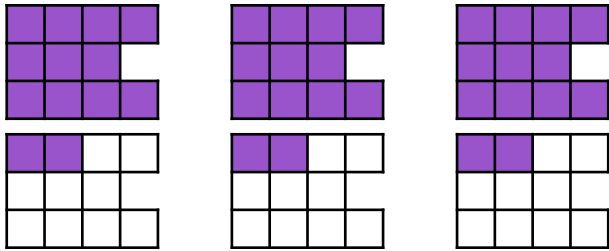


VF

## Multiply Fractions by Integers

9a. Find and correct the mistake/s in the representation below.

$$3 \times 2 \frac{5}{11}$$

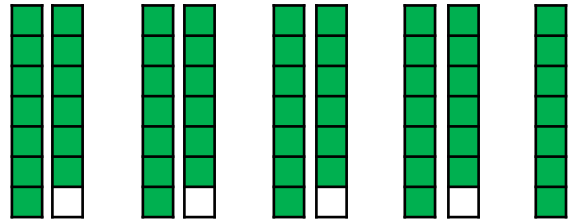


VF

## Multiply Fractions by Integers

9b. Find and correct the mistake/s in the representation below.

$$5 \times \frac{13}{7}$$



VF

10a. Create an image to find the answer to the calculation.

$$\frac{8}{9} \times 7 = \square$$



VF

10b. Create an image to find the answer to the calculation.

$$3 \frac{12}{15} \times 4 = \square$$



VF

11a. Answer the question below.

What are 8 lots of  $2 \frac{7}{12}$  ?



VF

11b. Answer the question below.

What are 6 lots of  $\frac{9}{11}$  ?



VF

12a. True or false?

$$8 \times 1 \frac{5}{13} = \frac{23}{14} \times 7$$



VF

12b. True or false?

$$3 \times 5 \frac{6}{7} < 3 \frac{5}{6} \times 5$$



VF

## Varied Fluency Multiply Fractions by Integers

### Developing

- 1a. **A**  
2a.  $5\frac{1}{2}$  or  $\frac{44}{8}$   
3a. There are 3 lots of  $1\frac{1}{3}$ .  
4a. **True**

### Expected

- 5a. **A**  
6a.  $3\frac{3}{5}$  or  $\frac{36}{10}$   
7a.  $14\frac{8}{11}$  or  $\frac{162}{11}$   
8a. **True**

### Greater Depth

- 9a. The image represents  $3 \times 1\frac{2}{11}$ . A further set of 3 integers needs to be added and the correct fraction shaded in.  
10a.  $6\frac{2}{9}$   
11a.  $20\frac{2}{3}$   
12a. **False; <**

## Varied Fluency Multiply Fractions by Integers

### Developing

- 1b. **B**  
2b.  $7\frac{1}{5}$  or  $\frac{36}{5}$   
3b. There are 5 lots of  $\frac{2}{8}$ .  
4b. **True**

### Expected

- 5b. **B**  
6b.  $14\frac{3}{8}$  or  $\frac{115}{8}$   
7b.  $8\frac{4}{13}$  or  $\frac{108}{13}$   
8b. **False; >**

### Greater Depth

- 9b. The image does not show the final  $\frac{6}{7}$  to complete the calculation.  
10b.  $15\frac{1}{5}$   
11b.  $4\frac{10}{11}$   
12b. **True**