

Varied Fluency

Step 16: Multiply 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 unit fractions by integers. Images provided for support.

Expected Questions to support multiplying unit fractions by integers. Answers either need to be converted to mixed numbers or simplified using knowledge of equivalent fractions. Images provided for support.

Greater Depth Questions to support multiplying unit fractions by integers. Answers need to be converted to mixed numbers and simplified using knowledge of equivalent fractions. Some incomplete pictorial support.

More [Year 5 Fractions](#) resources.

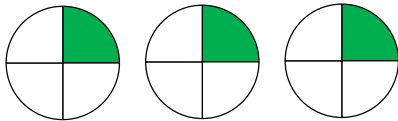
Did you like this resource? Don't forget to [review](#) it on our website.

Multiply Unit Fractions by an Integer

Multiply Unit Fractions by an Integer

1a. Use the images to calculate:

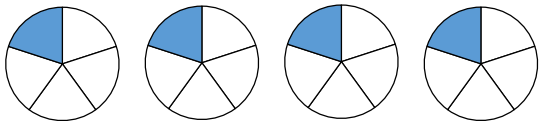
$$\frac{1}{4} \times 3 = \frac{\boxed{}}{\boxed{}}$$



VF

1b. Use the images to calculate:

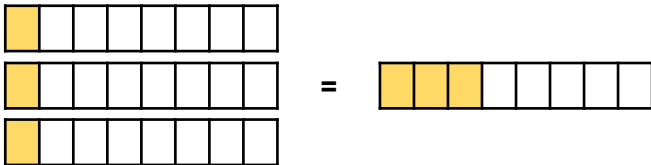
$$\frac{1}{5} \times 4 = \frac{\boxed{}}{\boxed{}}$$



VF

2a. Write the calculation that matches the image.

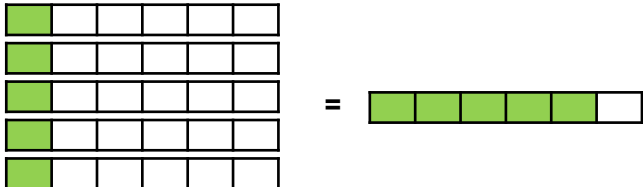
$$\frac{\boxed{}}{\boxed{}} \times \boxed{} = \frac{\boxed{}}{\boxed{}}$$



VF

2b. Write the calculation that matches the image.

$$\frac{\boxed{}}{\boxed{}} \times \boxed{} = \frac{\boxed{}}{\boxed{}}$$



VF

3a. Circle the correct answer to the calculation below.

$$\frac{1}{7} \times 6 = \frac{1}{7} \quad \frac{1}{7} \quad \frac{1}{7} \quad \frac{1}{7} \quad \frac{1}{7} \quad \frac{1}{7} \quad \frac{1}{7}$$

- A. $\frac{1}{7}$ B. $\frac{6}{7}$ C. $\frac{6}{42}$



VF

3b. Circle the correct answer to the calculation below.


$$\frac{1}{9} \times 5 = \frac{1}{9} \quad \frac{1}{9} \quad \frac{1}{9} \quad \frac{1}{9} \quad \frac{1}{9} \quad \frac{1}{9} \quad \frac{1}{9} \quad \frac{1}{9} \quad \frac{1}{9}$$


- A. $\frac{5}{45}$ B. $\frac{9}{5}$ C. $\frac{5}{9}$



VF

4a. Complete the calculations.


A. $\frac{1}{6} \times \boxed{} =$  $= \frac{\boxed{}}{\boxed{}}$


B. $\frac{1}{8} \times \boxed{} =$  $= \frac{\boxed{}}{\boxed{}}$



VF

4b. Complete the calculations.

A. $\frac{1}{5} \times \boxed{} =$  $= \frac{\boxed{}}{\boxed{}}$

B. $\frac{1}{7} \times \boxed{} =$  $= \frac{\boxed{}}{\boxed{}}$



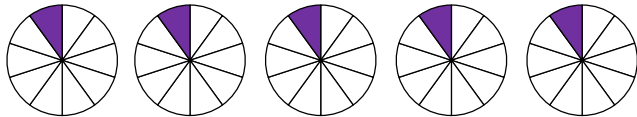
VF

Multiply Unit Fractions by an Integer

Multiply Unit Fractions by an Integer

5a. Use the images to calculate:

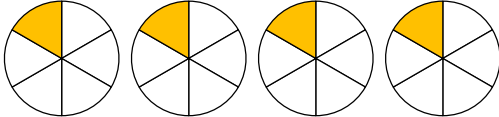
$$\frac{1}{10} \times 5 = \frac{\square}{\square} = \frac{\square}{\square}$$



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5b. Use the images to calculate:

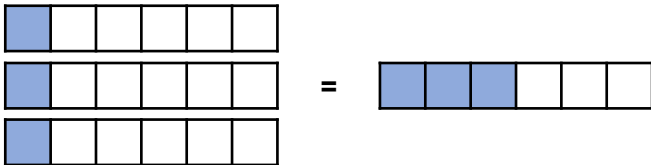
$$\frac{1}{6} \times 4 = \frac{\square}{\square} = \frac{\square}{\square}$$



VF

6a. Write the calculation that matches the image.

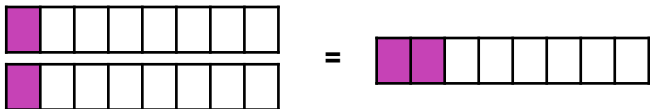
$$\frac{\square}{\square} \times \square = \frac{\square}{\square} = \frac{\square}{\square}$$



VF

6b. Write the calculation that matches the image.

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



VF

7a. Circle the correct answer to the calculation below.

$$\frac{1}{8} \times 4 = \frac{1}{8} \quad \frac{1}{8} \quad \frac{1}{8} \quad \frac{1}{8} \quad \frac{1}{8} \quad \frac{1}{8} \quad \frac{1}{8} \quad \frac{1}{8}$$

A. $\frac{1}{32}$ B. $\frac{4}{32}$ C. $\frac{1}{2}$



VF

7b. Circle the correct answer to the calculation below.



$$\frac{1}{12} \times 8 = \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12} \quad \frac{1}{12}$$



A. $\frac{8}{96}$ B. $\frac{2}{3}$ C. $\frac{3}{4}$



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8a. Complete the calculations.



A. $\frac{1}{10} \times \square =$   $= \frac{\square}{\square} = \frac{\square}{\square}$



B. $\frac{1}{7} \times \square =$   $= \frac{\square}{\square} = \frac{\square}{\square}$



VF

8b. Complete the calculations.

A. $\frac{1}{9} \times \square =$   $= \frac{\square}{\square} = \frac{\square}{\square}$

B. $\frac{1}{5} \times \square =$   $= \frac{\square}{\square} = \frac{\square}{\square}$



VF

Multiply Unit Fractions by an Integer

Multiply Unit Fractions by an Integer

9a. Use the images to calculate:

$\frac{1}{6} \times 8 = \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square}$

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9b. Use the images to calculate:

$\frac{1}{4} \times 6 = \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square}$

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10a. Write the calculation that matches the image.

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

VF

10b. Write the calculation that matches the image.

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

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11a. Circle the correct answer to the calculation below.

$\frac{1}{9} \times 12 =$

- A. $1 \frac{12}{9}$ B. $1 \frac{1}{3}$ C. $1 \frac{1}{9}$



VF

11b. Circle the correct answer to the calculation below.

$\frac{1}{8} \times 10 =$

- A. $1 \frac{1}{4}$ B. $1 \frac{1}{8}$ C. $1 \frac{10}{8}$



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12a. Complete the calculations.

A. $\frac{1}{12} \times 16 = \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square}$

B. $\frac{1}{8} \times 12 = \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square}$



VF

12b. Complete the calculations.

A. $\frac{1}{9} \times 15 = \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square}$

B. $\frac{1}{12} \times 14 = \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square} = \frac{\square}{\square} \frac{\square}{\square}$



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Multiply Unit Fractions by an Integer

Developing

1a. $\frac{3}{4}$

2a. $\frac{1}{8} \times 3 = \frac{3}{8}$

3a. **B**

4a. **A.** $\frac{1}{6} \times 5 = \frac{5}{6}$

B. $\frac{1}{8} \times 7 = \frac{7}{8}$

Expected

5a. $\frac{5}{10} = \frac{1}{2}$

6a. $\frac{1}{6} \times 3 = \frac{3}{6} = \frac{1}{2}$

7a. **C**

8a. **A.** $\frac{1}{10} \times 11 = \frac{11}{10} = 1 \frac{1}{10}$

B. $\frac{1}{7} \times 12 = \frac{12}{7} = 1 \frac{5}{7}$

Greater Depth

9a. $\frac{8}{6} = 1 \frac{2}{6} = 1 \frac{1}{3}$

10a. $\frac{1}{8} \times 10 = \frac{10}{8} = 1 \frac{2}{8} = 1 \frac{1}{4}$

11a. **B**

12a. **A.** $\frac{1}{12} \times 16 = \frac{16}{12} = 1 \frac{4}{12} = 1 \frac{1}{3}$

B. $\frac{1}{8} \times 12 = \frac{12}{8} = 1 \frac{4}{8} = 1 \frac{1}{2}$

Varied Fluency

Multiply Unit Fractions by an Integer

Developing

1b. $\frac{4}{5}$

2b. $\frac{1}{6} \times 5 = \frac{5}{6}$

3b. **C**

4b. **A.** $\frac{1}{5} \times 3 = \frac{3}{5}$

B. $\frac{1}{7} \times 3 = \frac{3}{7}$

Expected

5b. $\frac{4}{6} = \frac{2}{3}$

6b. $\frac{1}{8} \times 2 = \frac{2}{8} = \frac{1}{4}$

7b. **B**

8b. **A.** $\frac{1}{9} \times 10 = \frac{10}{9} = 1 \frac{1}{9}$

B. $\frac{1}{5} \times 8 = \frac{8}{5} = 1 \frac{3}{5}$

Greater Depth

9b. $\frac{6}{4} = 1 \frac{2}{4} = 1 \frac{1}{2}$

10b. $\frac{1}{6} \times 10 = \frac{10}{6} = 1 \frac{4}{6} = 1 \frac{2}{3}$

11b. **A**

12b. **A.** $\frac{1}{9} \times 15 = \frac{15}{9} = 1 \frac{6}{9} = 1 \frac{2}{3}$

B. $\frac{1}{12} \times 14 = \frac{14}{12} = 1 \frac{2}{12} = 1 \frac{1}{6}$