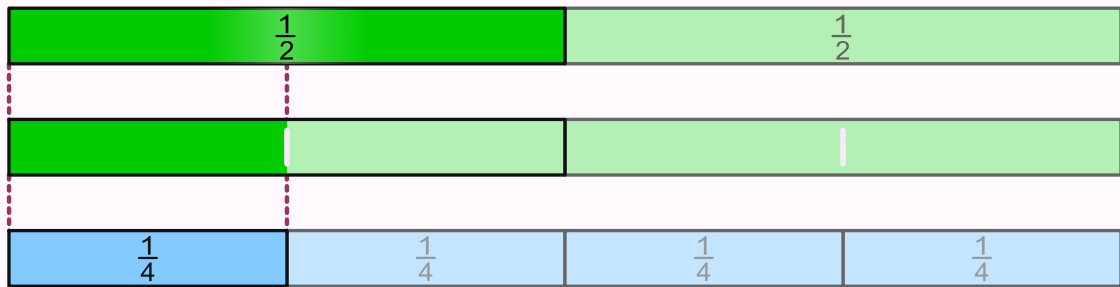# Visual Multiplication of Fractions

We can visualize the multiplication of fractions using a standard procedure. Here are exercises on this. The calculation should be written down, and the typical picture that results from visual multiplication of fractions should be drawn.

Exercise 1 – Solution

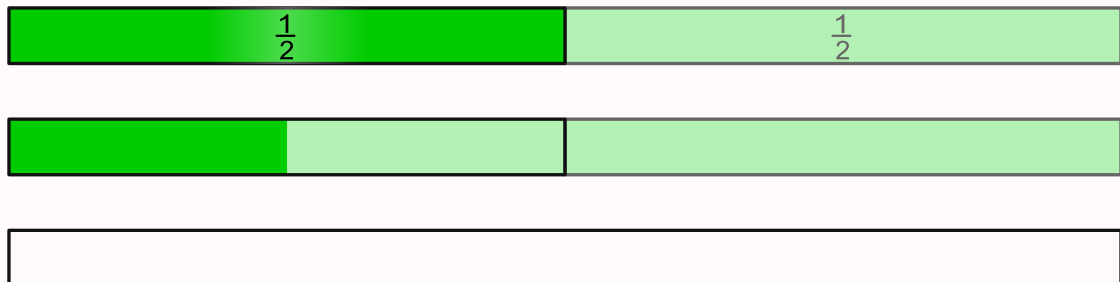$$\frac{1}{2} \cdot \frac{1}{2} = \frac{1 \cdot 1}{2 \cdot 2} = \frac{1}{4}$$

Exercise 1 – Level 1

$$\frac{1}{2} \cdot \frac{1}{2} =$$
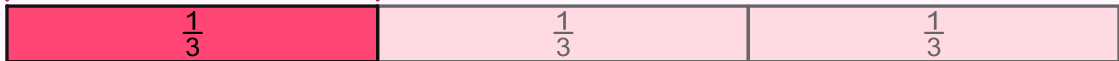

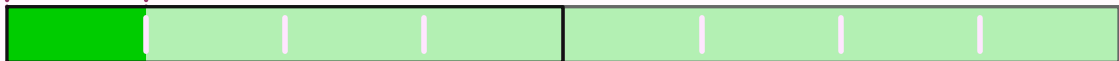**Exercise 1 – Level 2**

$$\frac{1}{2} \cdot \frac{1}{2} =$$

Exercise 1 – Level 3

$$\frac{1}{2} \cdot \frac{1}{2} =$$

$\frac{1}{2}$	$\frac{1}{2}$

Exercise 2 – Solution

$$\frac{2}{3} \cdot \frac{1}{2} = \frac{2 \cdot 1}{3 \cdot 2} = \frac{2}{6} = \frac{1}{3}$$

$\frac{1}{2}$	$\frac{1}{2}$

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

Exercise 2 – Level 1

$$\frac{2}{3} \cdot \frac{1}{2} =$$

$\frac{1}{2}$	$\frac{1}{2}$

Exercise 2 – Level 2

$$\frac{2}{3} \cdot \frac{1}{2} =$$

$\frac{1}{2}$	$\frac{1}{2}$

4

Exercise 2 – Level 3

$$\frac{2}{3} \cdot \frac{1}{2} =$$

$\frac{1}{2}$	$\frac{1}{2}$

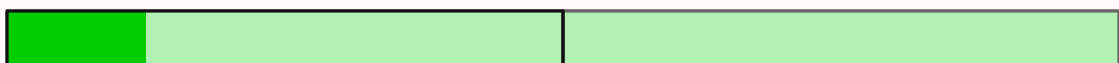**Exercise 3 – Solution**

$$\frac{1}{4} \cdot \frac{1}{2} = \frac{1 \cdot 1}{4 \cdot 2} = \frac{1}{8}$$

$\frac{1}{2}$	$\frac{1}{2}$

$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

Exercise 3 – Level 1

$$\frac{1}{4} \cdot \frac{1}{2} =$$

$\frac{1}{2}$	$\frac{1}{2}$

Exercise 3 – Level 2

$$\frac{1}{4} \cdot \frac{1}{2} =$$

$\frac{1}{2}$	$\frac{1}{2}$

Exercise 3 – Level 3

$$\frac{1}{4} \cdot \frac{1}{2} =$$

$\frac{1}{2}$	$\frac{1}{2}$

Exercise 4 – Solution

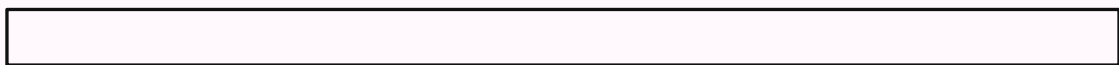$$\frac{2}{4} \cdot \frac{1}{2} = \frac{2 \cdot 1}{4 \cdot 2} = \frac{2}{8} = \frac{1}{4}$$

$\frac{1}{2}$	$\frac{1}{2}$

$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
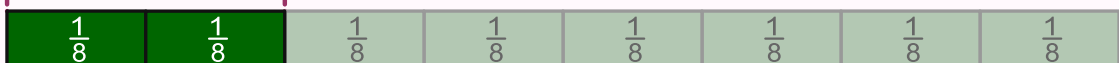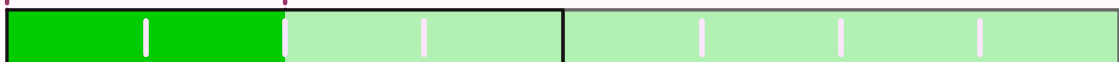
Exercise 4 – Level 1

$$\frac{2}{4} \cdot \frac{1}{2} =$$

Exercise 4 – Level 2

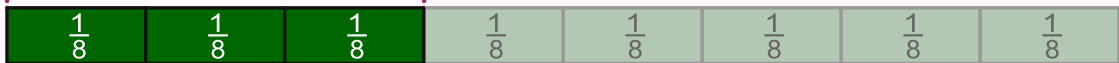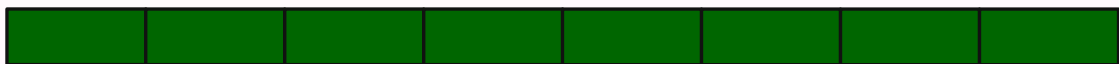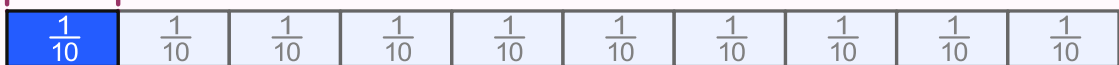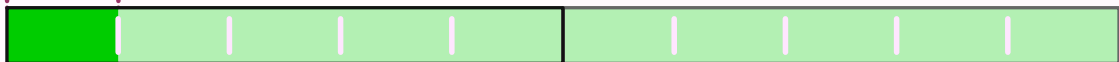$$\frac{2}{4} \cdot \frac{1}{2} =$$

7

Exercise 4 – Level 3

$$\frac{2}{4} \cdot \frac{1}{2} =$$

Exercise 5 – Solution

$$\frac{3}{4} \cdot \frac{1}{2} = \frac{3 \cdot 1}{4 \cdot 2} = \frac{3}{8}$$

$\frac{1}{2}$ $\frac{1}{2}$

$\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$

Exercise 5 – Level 1

$$\frac{3}{4} \cdot \frac{1}{2} =$$

Exercise 5 – Level 2

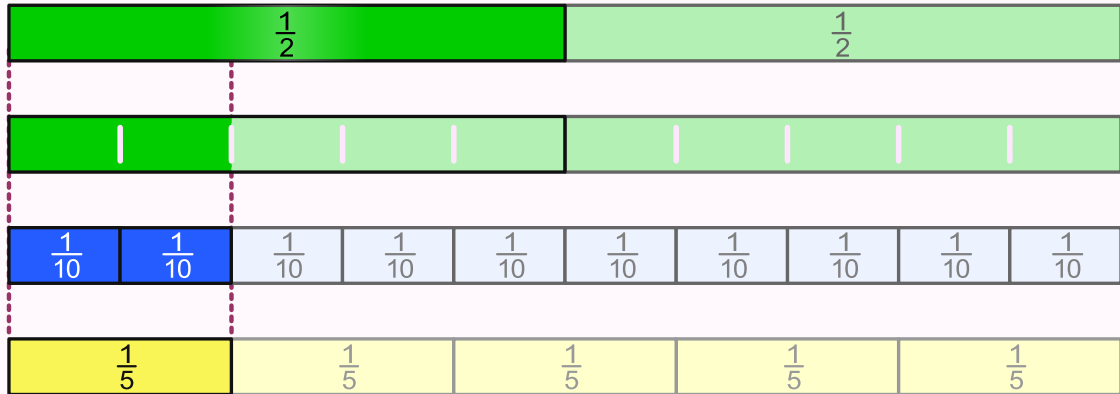$$\frac{3}{4} \cdot \frac{1}{2} =$$
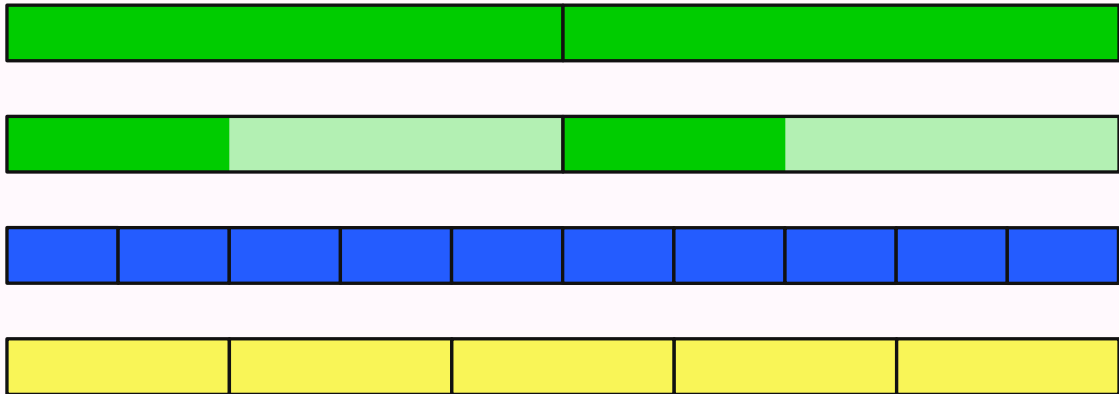
Exercise 5 – Level 3

$$\frac{3}{4} \cdot \frac{1}{2} =$$

Exercise 6 – Solution

$$\frac{1}{5} \cdot \frac{1}{2} = \frac{1 \cdot 1}{5 \cdot 2} = \frac{1}{10}$$

$\frac{1}{2}$ $\frac{1}{2}$

$\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$

Exercise 6 – Level 1

$$\frac{1}{5} \cdot \frac{1}{2} =$$

Exercise 6 – Level 2

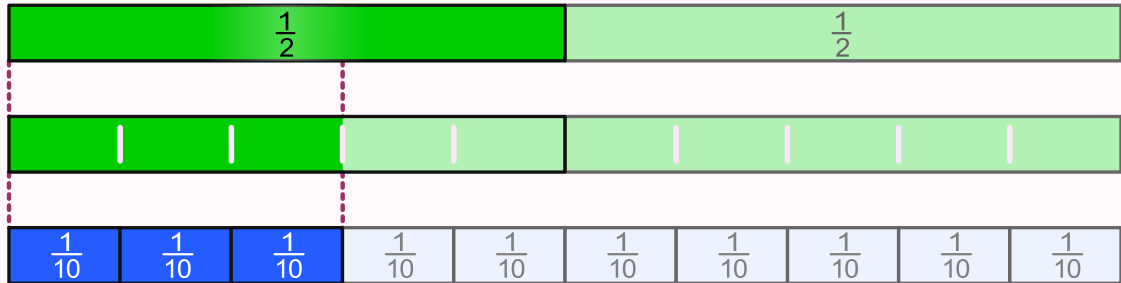$$\frac{1}{5} \cdot \frac{1}{2} =$$

Exercise 6 – Level 3
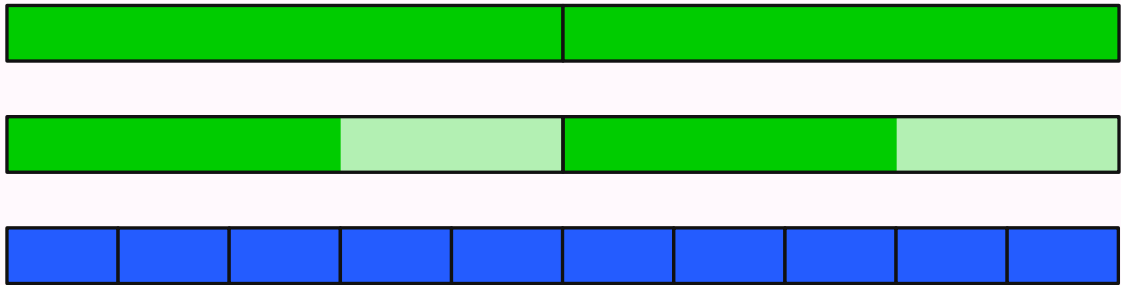
$$\frac{1}{5} \cdot \frac{1}{2} =$$
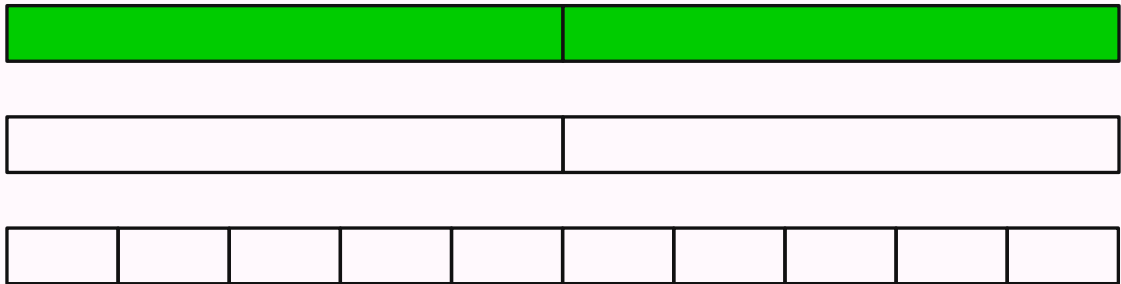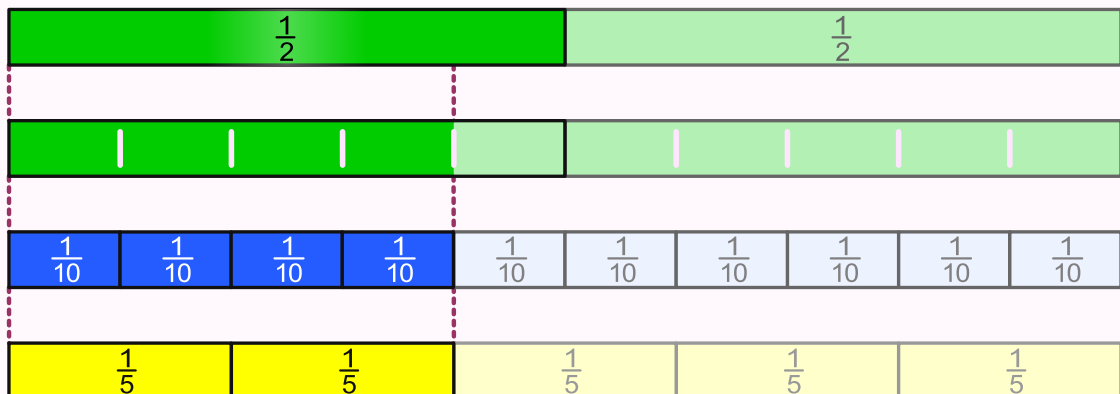
Exercise 7 – Solution

$$\frac{2}{5} \cdot \frac{1}{2} = \frac{2 \cdot 1}{5 \cdot 2} = \frac{2}{10} = \frac{1}{5}$$

$\frac{1}{2}$	$\frac{1}{2}$

| $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ |

| $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ |

Exercise 7 – Level 1

$$\frac{2}{5} \cdot \frac{1}{2} =$$

11

Exercise 7 – Level 2

$$\frac{2}{5} \cdot \frac{1}{2} =$$

Exercise 7 – Level 3

$$\frac{2}{5} \cdot \frac{1}{2} =$$

Exercise 8 – Solution

$$\frac{3}{5} \cdot \frac{1}{2} = \frac{3}{5 \cdot 2} = \frac{3}{10}$$

| $\frac{1}{2}$ | $\frac{1}{2}$ |

| $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ |

Exercise 8 – Level 1

$$\frac{3}{5} \cdot \frac{1}{2} =$$

Exercise 8 – Level 2

$$\frac{3}{5} \cdot \frac{1}{2} =$$

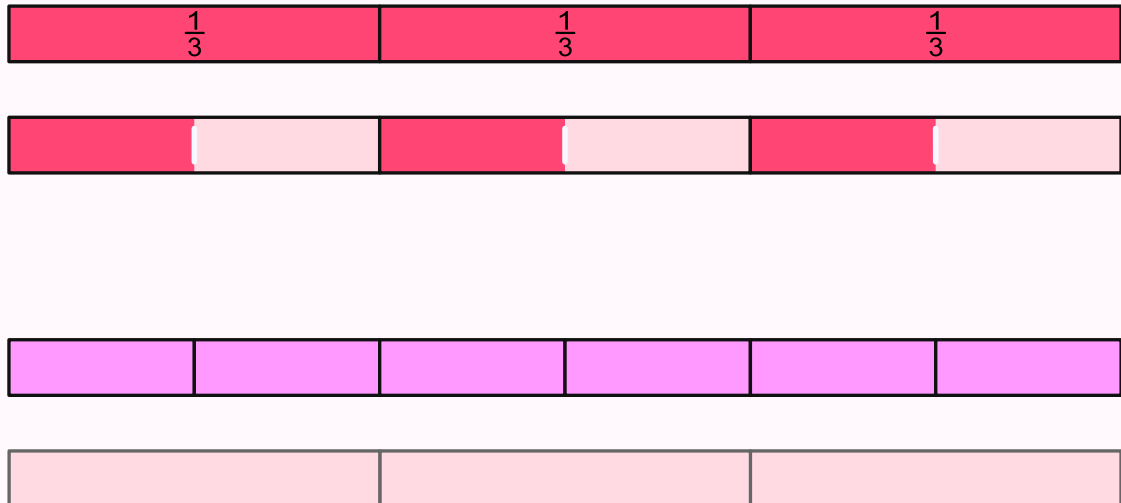**Exercise 8 – Level 3**

$$\frac{3}{5} \cdot \frac{1}{2} =$$

Exercise 9 – Solution

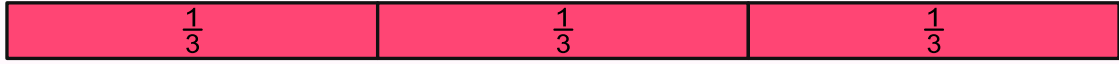$$\frac{4}{5} \cdot \frac{1}{2} = \frac{4 \cdot 1}{5 \cdot 2} = \frac{4}{10} = \frac{2}{5}$$

$\frac{1}{2}$	$\frac{1}{2}$

| $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ |

| $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ |

Exercise 9 – Level 1

$$\frac{4}{5} \cdot \frac{1}{2} =$$

Exercise 9 – Level 2

$$\frac{4}{5} \cdot \frac{1}{2} =$$
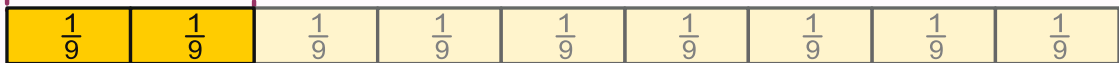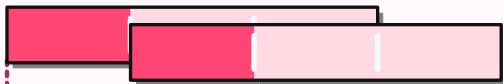
Exercise 9 – Level 3

$$\frac{4}{5} \cdot \frac{1}{2} =$$

Exercise 10 – Solution

$$\frac{1}{2} \cdot \frac{1}{3} = \frac{1 \cdot 1}{2 \cdot 3} = \frac{1}{6}$$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

Exercise 10 – Level 1

$$\frac{1}{2} \cdot \frac{1}{3} =$$

Exercise 10 – Level 2
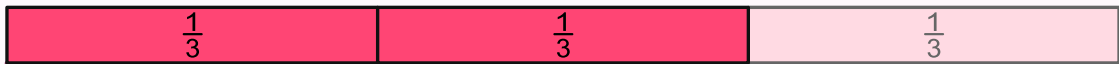
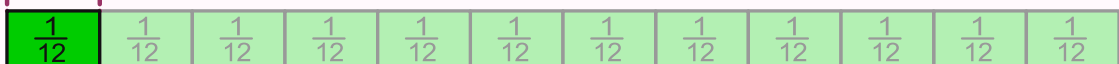$$\frac{1}{2} \cdot \frac{1}{3} =$$

Exercise 10 – Level 3

$$\frac{1}{2} \cdot \frac{1}{3} =$$

Exercise 11 – Solution

$$\frac{1}{2} \cdot \frac{2}{3} = \frac{1 \cdot 2}{2 \cdot 3} = \frac{2}{6} = \frac{1}{3}$$
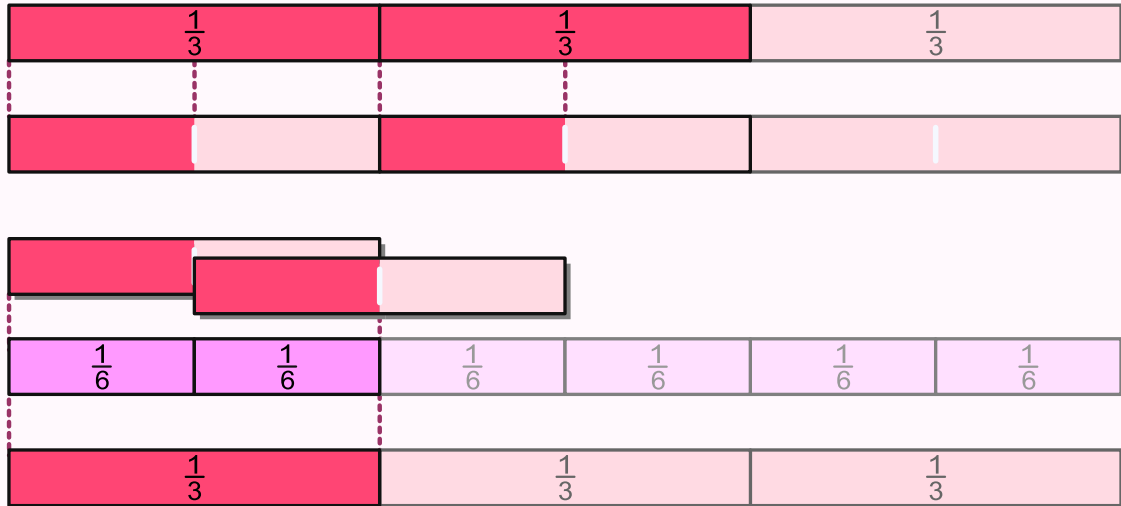
Exercise 11 – Level 1

$$\frac{1}{2} \cdot \frac{2}{3} =$$

Exercise 11 – Level 2

$$\frac{1}{2} \cdot \frac{2}{3} =$$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

Exercise 11 – Level 3

$$\frac{1}{2} \cdot \frac{2}{3} =$$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

Exercise 12 – Solution

$$\frac{1}{3} \cdot \frac{1}{3} = \frac{1 \cdot 1}{3 \cdot 3} = \frac{1}{9}$$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$
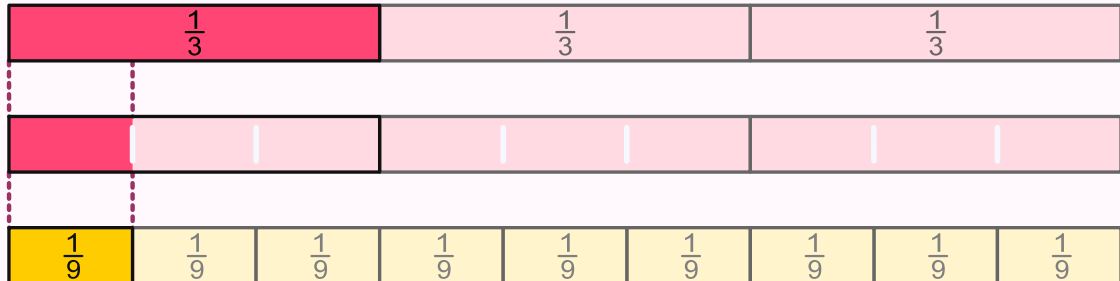
Exercise 12 – Level 1

$$\frac{1}{3} \cdot \frac{1}{3} =$$
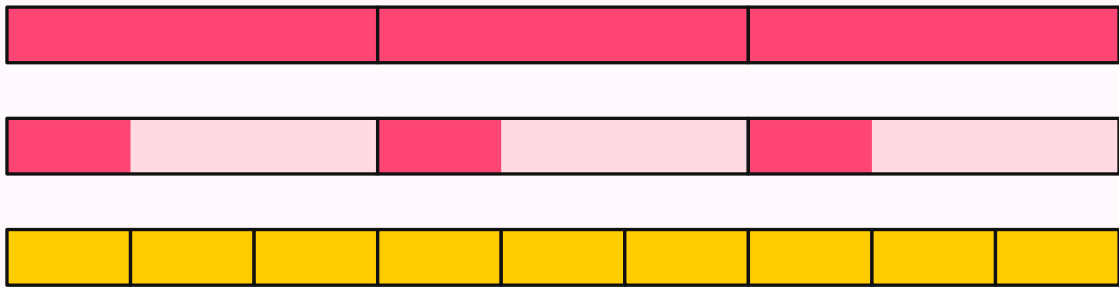
Exercise 12 – Level 2
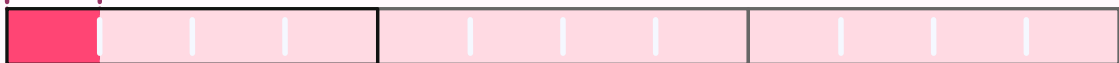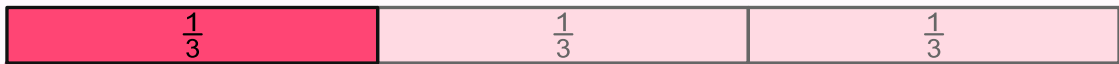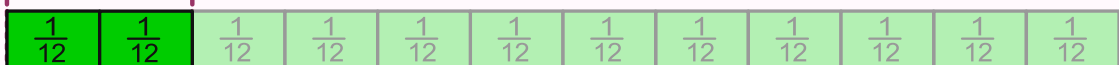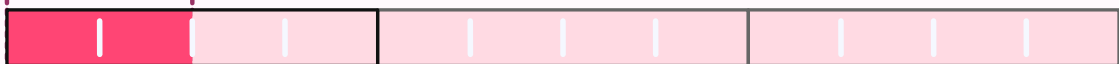
$$\frac{1}{3} \cdot \frac{1}{3} =$$
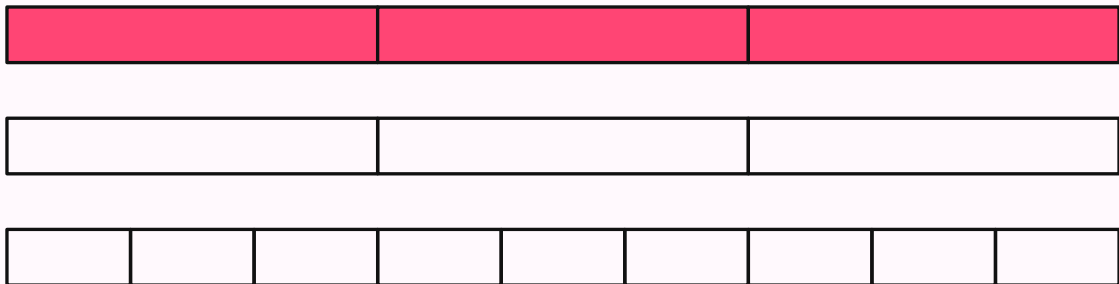
Exercise 12 – Level 3

$$\frac{1}{3} \cdot \frac{1}{3} =$$

Exercise 13 – Solution

$$\frac{1}{3} \cdot \frac{2}{3} = \frac{1 \cdot 2}{3 \cdot 3} = \frac{2}{9}$$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$

Exercise 13 – Level 1

$$\frac{1}{3} \cdot \frac{2}{3} =$$

Exercise 13 – Level 2

$$\frac{1}{3} \cdot \frac{2}{3} =$$

Exercise 13 – Level 3

$$\frac{1}{3} \cdot \frac{2}{3} =$$

Exercise 14 – Solution

$$\frac{2}{3} \cdot \frac{2}{3} = \frac{2 \cdot 2}{3 \cdot 3} = \frac{4}{9}$$
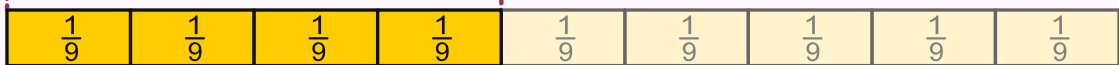
Exercise 14 – Level 1

$$\frac{2}{3} \cdot \frac{2}{3} =$$

Exercise 14 – Level 2

$$\frac{2}{3} \cdot \frac{2}{3} =$$

Exercise 14 – Level 3

$$\frac{2}{3} \cdot \frac{2}{3} =$$

Exercise 15 – Solution

$$\frac{1}{4} \cdot \frac{1}{3} = \frac{1 \cdot 1}{4 \cdot 3} = \frac{1}{12}$$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$

Exercise 15 – Level 1

$$\frac{1}{4} \cdot \frac{1}{3} =$$

Exercise 15 – Level 2

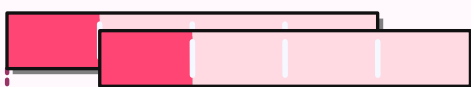$$\frac{1}{4} \cdot \frac{1}{3} =$$

Exercise 15 – Level 3

$$\frac{1}{4} \cdot \frac{1}{3} =$$

Exercise 16 – Solution

$$\frac{2}{4} \cdot \frac{1}{3} = \frac{2 \cdot 1}{4 \cdot 3} = \frac{2}{12} = \frac{1}{6}$$

| $\frac{1}{3}$ | | | | $\frac{1}{3}$ | | | | $\frac{1}{3}$ | | | |

| $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |

| $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ |

Exercise 16 – Level 1

$$\frac{2}{4} \cdot \frac{1}{3} =$$

Exercise 16 – Level 2

$$\frac{2}{4} \cdot \frac{1}{3} =$$

Exercise 16 – Level 3

$$\frac{2}{4} \cdot \frac{1}{3} =$$

Exercise 17 – Solution

$$\frac{3}{4} \cdot \frac{1}{3} = \frac{3 \cdot 1}{4 \cdot 3} = \frac{3}{12} = \frac{1}{4}$$
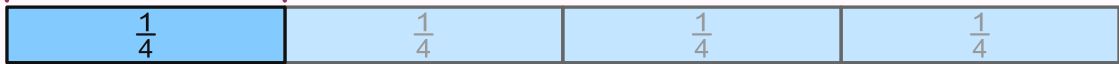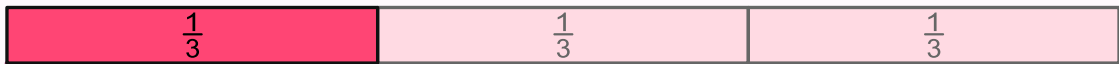
Exercise 17 – Level 1

$$\frac{3}{4} \cdot \frac{1}{3} =$$

Exercise 17 – Level 2
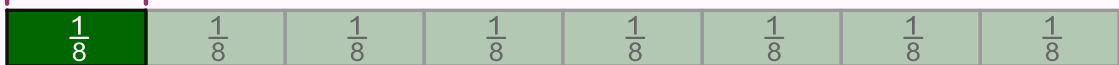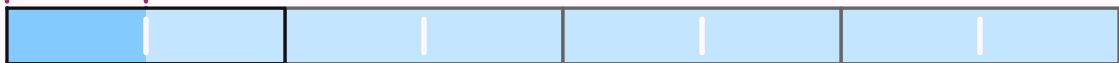
$$\frac{3}{4} \cdot \frac{1}{3} =$$
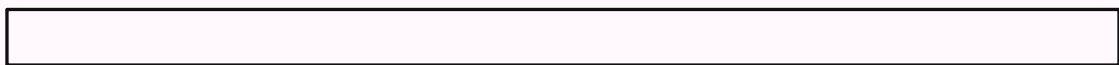
Exercise 17 – Level 3

$$\frac{3}{4} \cdot \frac{1}{3} =$$

Exercise 18 – Solution

$$\frac{1}{4} \cdot \frac{2}{3} = \frac{1 \cdot 2}{4 \cdot 3} = \frac{2}{12} = \frac{1}{6}$$
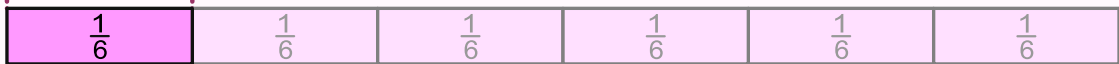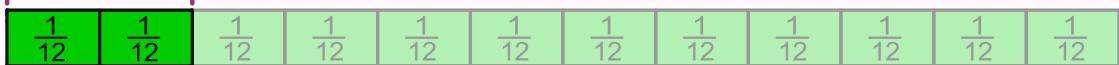
Exercise 18 – Level 1

$$\frac{1}{4} \cdot \frac{2}{3} =$$

Exercise 18 – Level 2
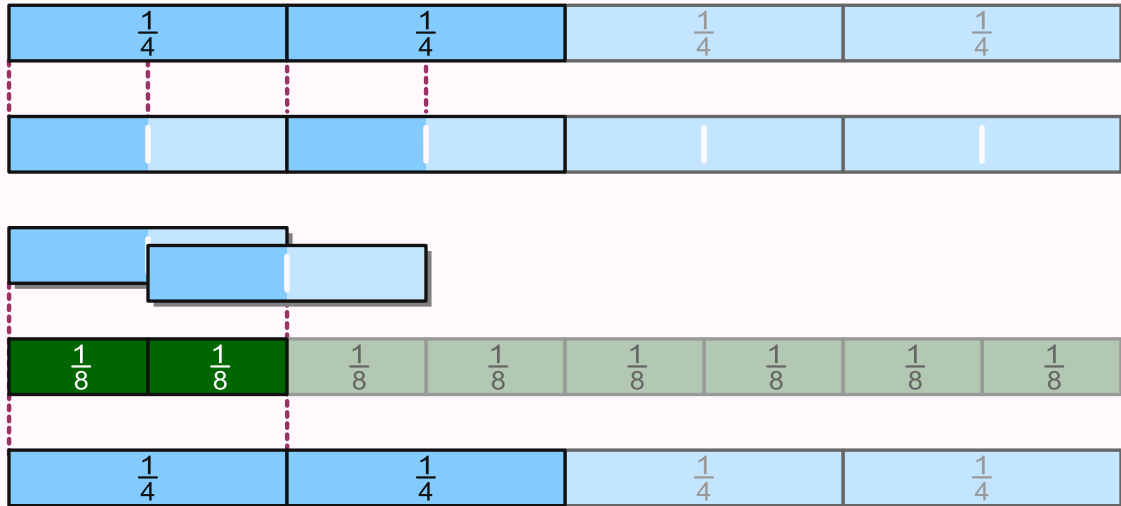
$$\frac{1}{4} \cdot \frac{2}{3} =$$

Exercise 18 – Level 3

$$\frac{1}{4} \cdot \frac{2}{3} =$$

Exercise 19 – Solution

$$\frac{2}{4} \cdot \frac{2}{3} = \frac{2 \cdot 2}{4 \cdot 3} = \frac{4}{12} = \frac{1}{3}$$
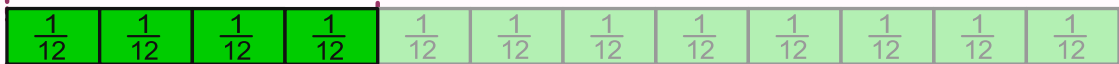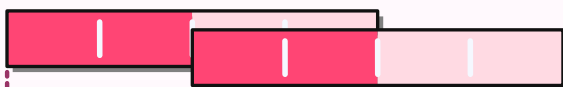
Exercise 19 – Level 1

$$\frac{2}{4} \cdot \frac{2}{3} =$$

Exercise 19 – Level 2

$$\frac{2}{4} \cdot \frac{2}{3} =$$
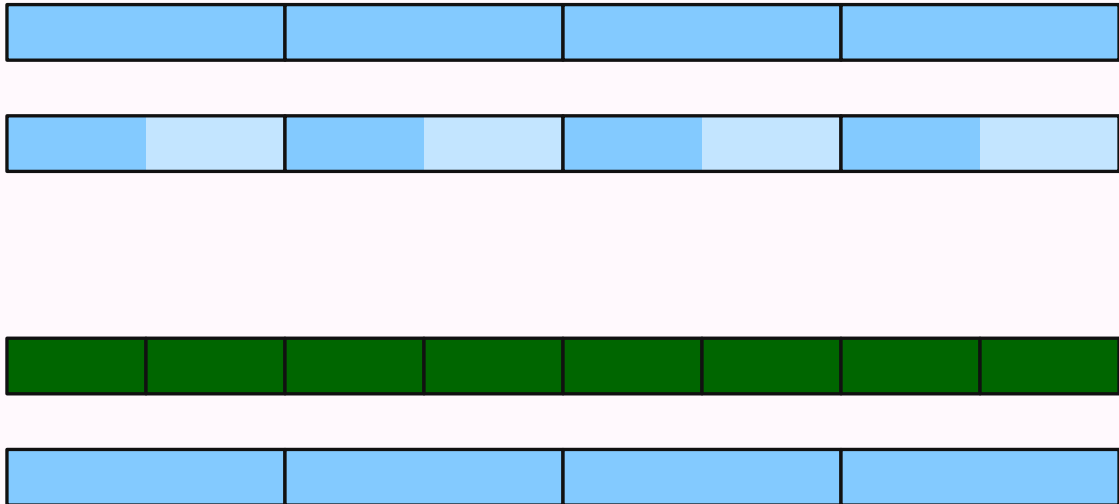
Exercise 19 – Level 3

$$\frac{2}{4} \cdot \frac{2}{3} =$$

Exercise 20 – Solution

$$\frac{3}{4} \cdot \frac{2}{3} = \frac{3 \cdot 2}{4 \cdot 3} = \frac{6}{12} = \frac{1}{2}$$

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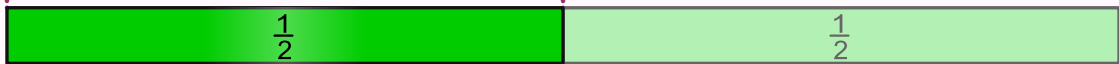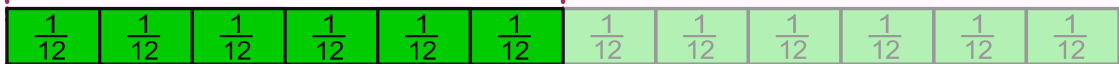
Exercise 20 – Level 1

$$\frac{3}{4} \cdot \frac{2}{3} =$$

Exercise 20 – Level 2
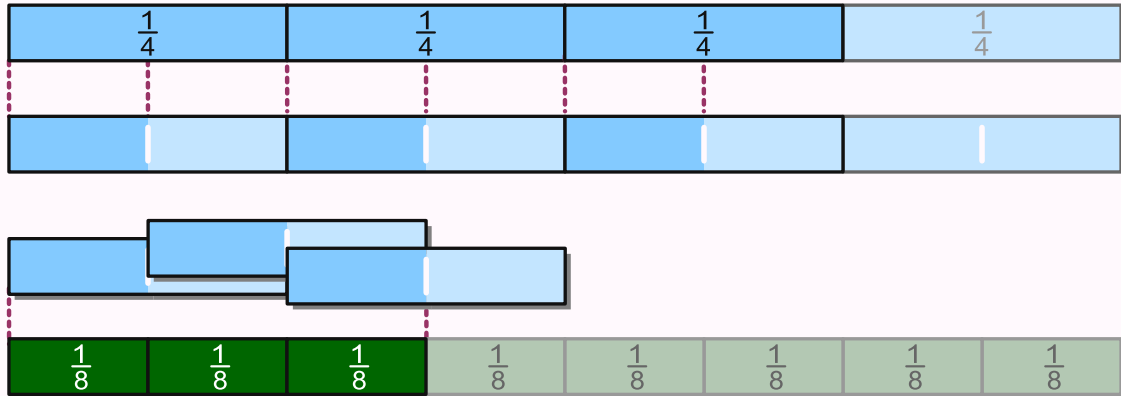
$$\frac{3}{4} \cdot \frac{2}{3} =$$

Exercise 20 – Level 3
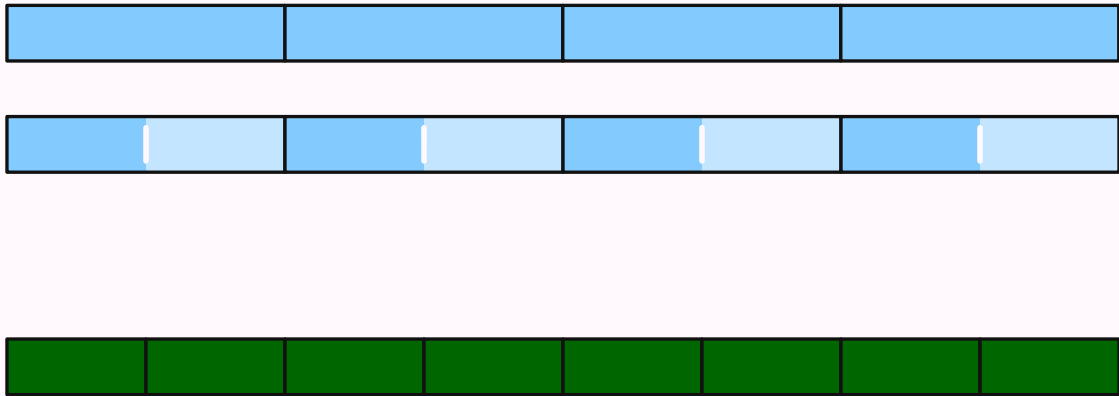
$$\frac{3}{4} \cdot \frac{2}{3} =$$

Exercise 21 – Solution

$$\frac{1}{2} \cdot \frac{1}{4} = \frac{1 \cdot 1}{2 \cdot 4} = \frac{1}{8}$$

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |

| $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ |

Exercise 21 – Level 1

$\dfrac{1}{2} \cdot \dfrac{1}{4} =$

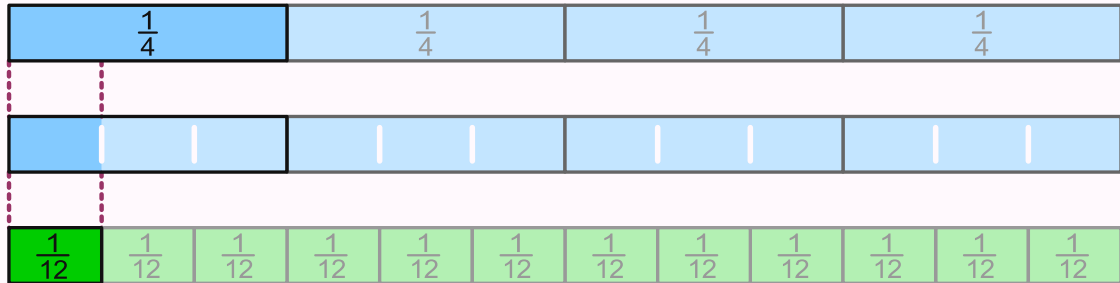**Exercise 21 – Level 2**

$\dfrac{1}{2} \cdot \dfrac{1}{4} =$

Exercise 21 – Level 3

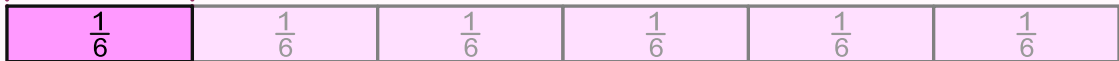$\dfrac{1}{2} \cdot \dfrac{1}{4} =$

Exercise 22 – Solution

$$\frac{1}{2} \cdot \frac{2}{4} = \frac{1 \cdot 2}{2 \cdot 4} = \frac{2}{8} = \frac{1}{4}$$

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |

| $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ |

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |

Exercise 22 – Level 1

$$\frac{1}{2} \cdot \frac{2}{4} =$$

38

Exercise 22 – Level 2
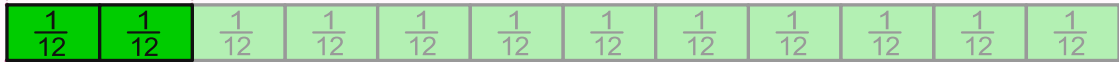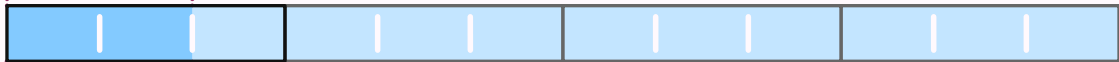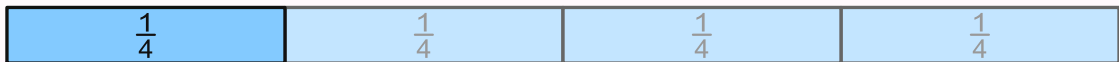
$\frac{1}{2} \cdot \frac{2}{4} =$

Exercise 22 – Level 3

$\frac{1}{2} \cdot \frac{2}{4} =$

Exercise 23 – Solution

$$\frac{1}{2} \cdot \frac{3}{4} = \frac{1 \cdot 3}{2 \cdot 4} = \frac{3}{8}$$

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

Exercise 23 – Level 1

$$\frac{1}{2} \cdot \frac{3}{4} =$$

40

Exercise 23 – Level 2

$$\frac{1}{2} \cdot \frac{3}{4} =$$

Exercise 23 – Level 3

$$\frac{1}{2} \cdot \frac{3}{4} =$$

Exercise 24 – Solution

$$\frac{1}{3} \cdot \frac{1}{4} = \frac{1 \cdot 1}{3 \cdot 4} = \frac{1}{12}$$

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |

| $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |

Exercise 24 – Level 1

$$\frac{1}{3} \cdot \frac{1}{4} =$$

Exercise 24 – Level 2
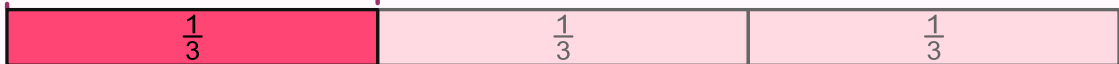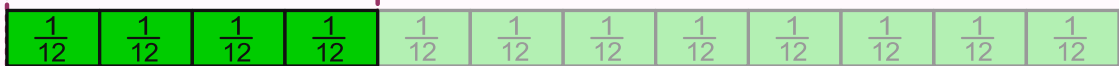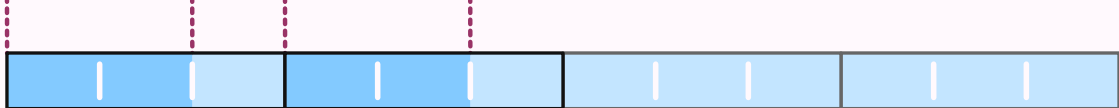
$$\frac{1}{3} \cdot \frac{1}{4} =$$
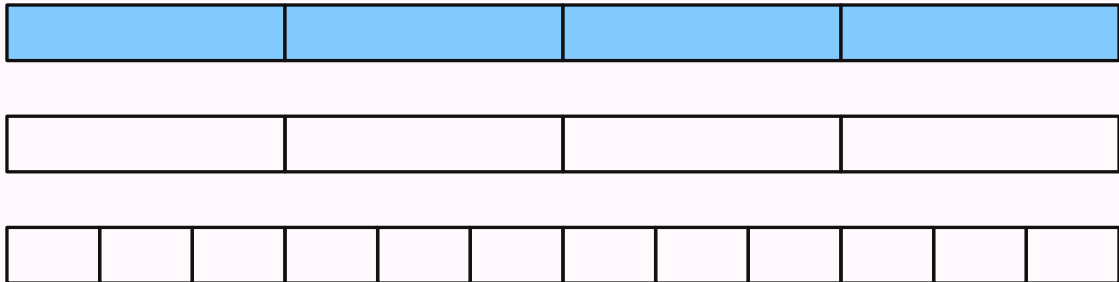
Exercise 24 – Level 3

$$\frac{1}{3} \cdot \frac{1}{4} =$$

Exercise 25 – Solution

$$\frac{2}{3} \cdot \frac{1}{4} = \frac{2 \cdot 1}{3 \cdot 4} = \frac{2}{12} = \frac{1}{6}$$

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

43

Exercise 25 – Level 1

$$\frac{2}{3} \cdot \frac{1}{4} =$$

Exercise 25 – Level 2

$$\frac{2}{3} \cdot \frac{1}{4} =$$

Exercise 25 – Level 3

$$\frac{2}{3} \cdot \frac{1}{4} =$$

Exercise 26 – Solution

$$\frac{1}{3} \cdot \frac{2}{4} = \frac{1 \cdot 2}{3 \cdot 4} = \frac{2}{12} = \frac{1}{6}$$
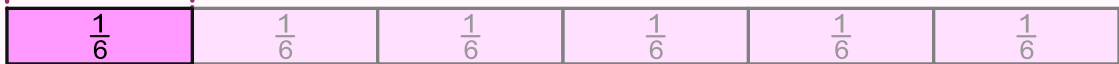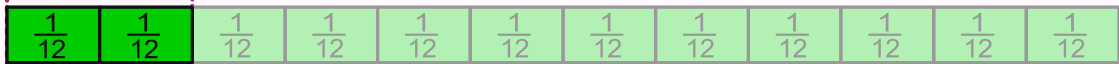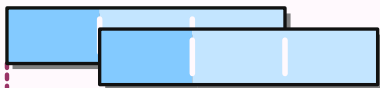
Exercise 26 – Level 1

$$\frac{1}{3} \cdot \frac{2}{4} =$$

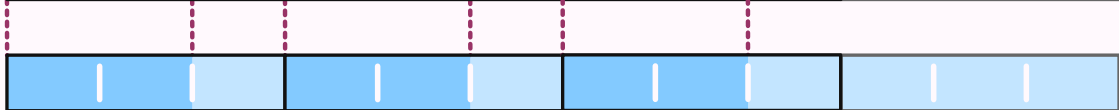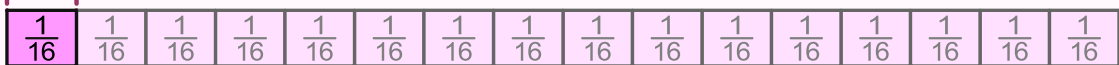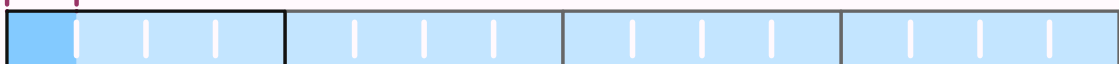## Exercise 26 – Level 2
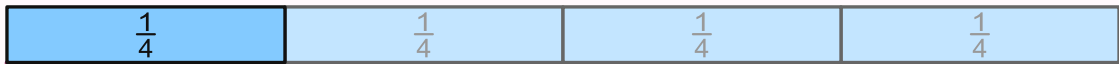
$$\frac{1}{3} \cdot \frac{2}{4} =$$

Exercise 26 – Level 3

$$\frac{1}{3} \cdot \frac{2}{4} =$$

Exercise 27 – Solution

$$\frac{2}{3} \cdot \frac{2}{4} = \frac{2 \cdot 2}{3 \cdot 4} = \frac{4}{12} = \frac{1}{3}$$

Exercise 27 – Level 1

$$\frac{2}{3} \cdot \frac{2}{4} =$$

Exercise 27 – Level 2
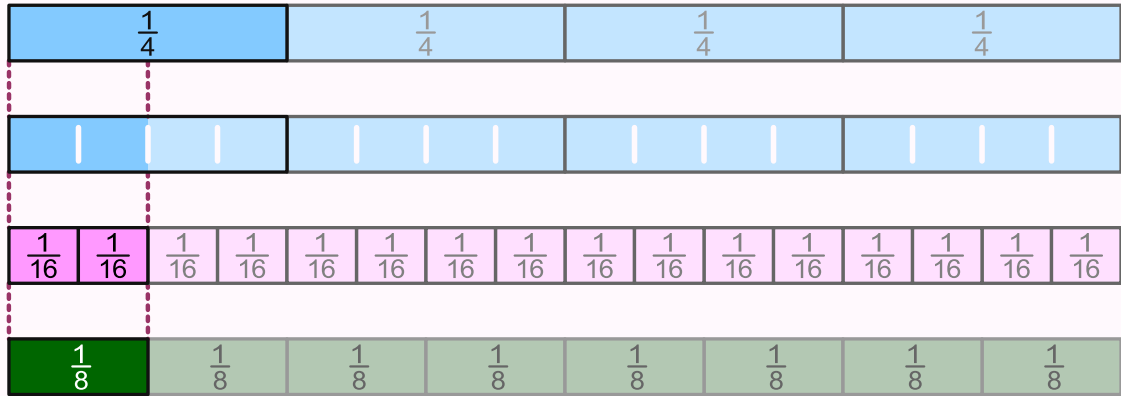
$$\frac{2}{3} \cdot \frac{2}{4} =$$

Exercise 27 – Level 3
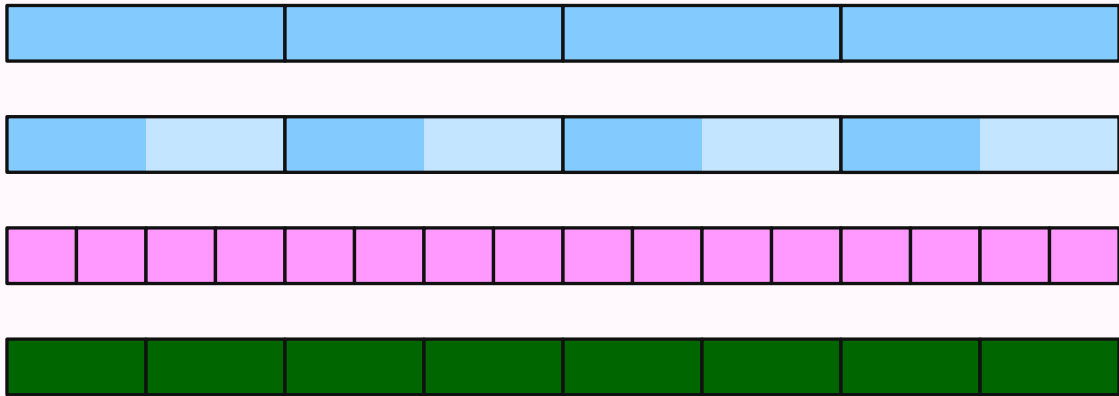
$$\frac{2}{3} \cdot \frac{2}{4} =$$

Exercise 28 – Solution

$$\frac{2}{3} \cdot \frac{3}{4} = \frac{2 \cdot 3}{3 \cdot 4} = \frac{6}{12} = \frac{1}{2}$$
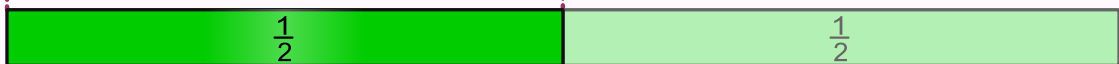
Exercise 28 – Level 1

$$\frac{2}{3} \cdot \frac{3}{4} =$$

Exercise 28 – Level 2

$$\frac{2}{3} \cdot \frac{3}{4} =$$

Exercise 28 – Level 3

$$\frac{2}{3} \cdot \frac{3}{4} =$$
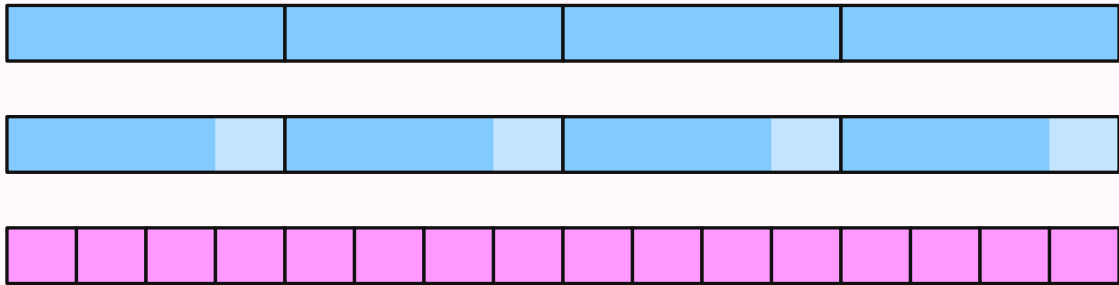
Exercise 29 – Solution

$$\frac{1}{4} \cdot \frac{1}{4} = \frac{1 \cdot 1}{4 \cdot 4} = \frac{1}{16}$$

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$

Exercise 29 – Level 1

$\dfrac{1}{4} \cdot \dfrac{1}{4} =$

Exercise 29 – Level 2

$\dfrac{1}{4} \cdot \dfrac{1}{4} =$

Exercise 29 – Level 3

$\dfrac{1}{4} \cdot \dfrac{1}{4} =$
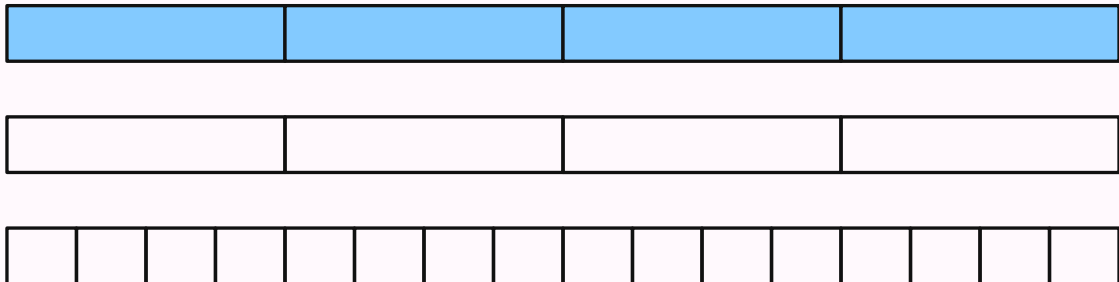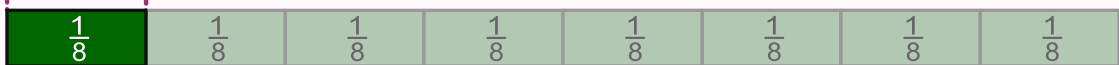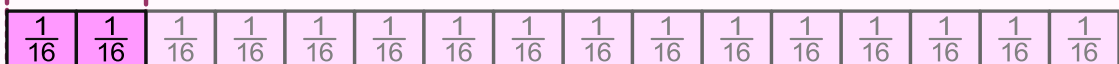
Exercise 30 – Solution

$$\frac{2}{4} \cdot \frac{1}{4} = \frac{2 \cdot 1}{4 \cdot 4} = \frac{2}{16} = \frac{1}{8}$$

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |

| $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ |

| $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ |

Exercise 30 – Level 1

$$\frac{2}{4} \cdot \frac{1}{4} =$$

53

Exercise 30 – Level 2

$$\frac{2}{4} \cdot \frac{1}{4} =$$

Exercise 30 – Level 3

$$\frac{2}{4} \cdot \frac{1}{4} =$$

Exercise 31 – Solution

$$\frac{3}{4} \cdot \frac{1}{4} = \frac{3 \cdot 1}{4 \cdot 4} = \frac{3}{16}$$
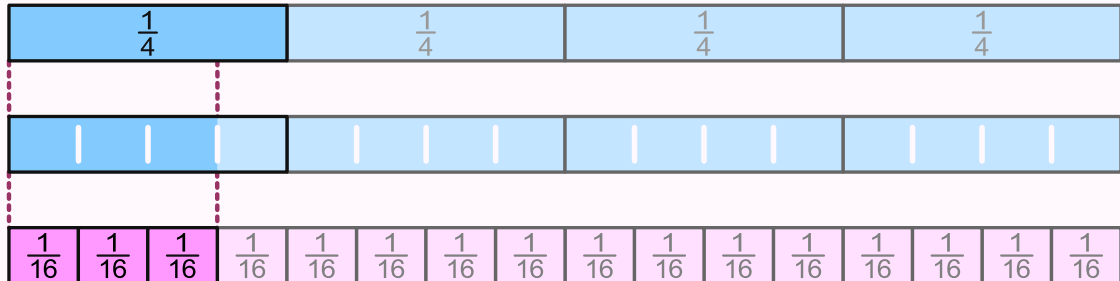
Exercise 31 – Level 1

$$\frac{3}{4} \cdot \frac{1}{4} =$$

Exercise 31 – Level 2
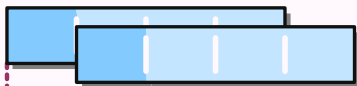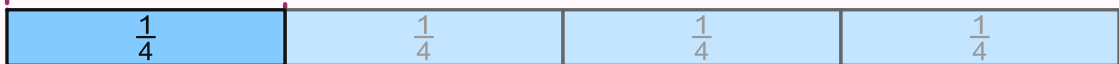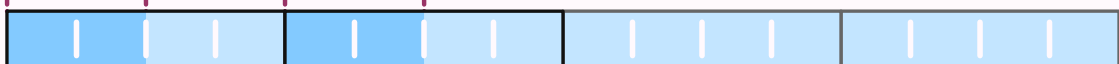
$$\frac{3}{4} \cdot \frac{1}{4} =$$

Exercise 31 – Level 3
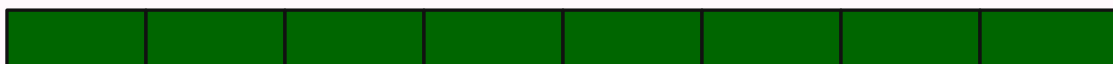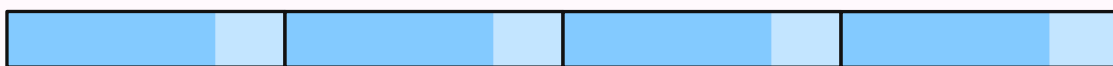
$$\frac{3}{4} \cdot \frac{1}{4} =$$

Exercise 32 – Solution

$$\frac{1}{4} \cdot \frac{2}{4} = \frac{2}{4 \cdot 4} = \frac{2}{16} = \frac{1}{8}$$

Exercise 32 – Level 1

$$\frac{1}{4} \cdot \frac{2}{4} =$$

Exercise 32 – Level 2
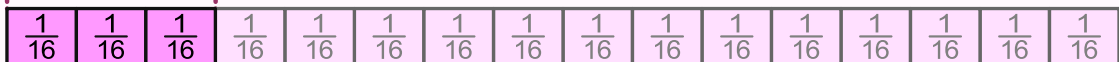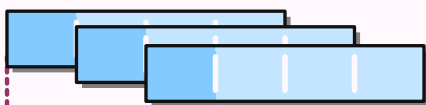
$$\frac{1}{4} \cdot \frac{2}{4} =$$

Exercise 32 – Level 3

$$\frac{1}{4} \cdot \frac{2}{4} =$$

Exercise 33 – Solution

$$\frac{2}{4} \cdot \frac{2}{4} = \frac{2 \cdot 2}{4 \cdot 4} = \frac{4}{16} = \frac{1}{4}$$

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Exercise 33 – Level 1

$$\frac{2}{4} \cdot \frac{2}{4} =$$

Exercise 33 – Level 2
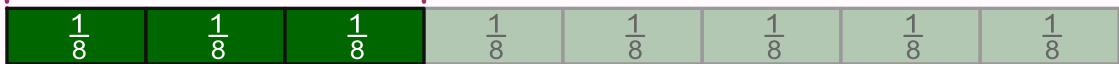
$$\frac{2}{4} \cdot \frac{2}{4} =$$

Exercise 33 – Level 3

$$\frac{2}{4} \cdot \frac{2}{4} =$$

Exercise 34 – Solution

$$\frac{3}{4} \cdot \frac{2}{4} = \frac{3 \cdot 2}{4 \cdot 4} = \frac{6}{16} = \frac{3}{8}$$

Exercise 34 – Level 1

$$\frac{3}{4} \cdot \frac{2}{4} =$$

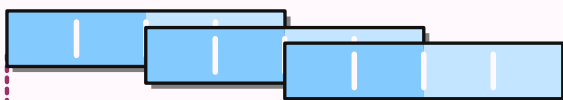**Exercise 34 – Level 2**
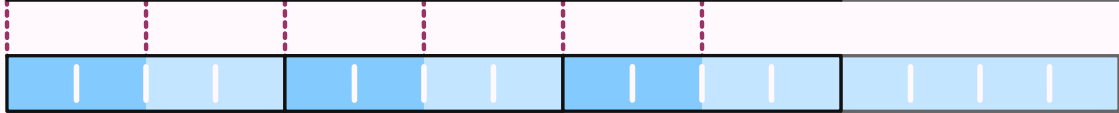
$$\frac{3}{4} \cdot \frac{2}{4} =$$

Exercise 34 – Level 3

$$\frac{3}{4} \cdot \frac{2}{4} =$$

Exercise 35 – Solution

$$\frac{1}{4} \cdot \frac{3}{4} = \frac{1 \cdot 3}{4 \cdot 4} = \frac{3}{16}$$

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |

| $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ | $\frac{1}{16}$ |

Exercise 35 – Level 1

$$\frac{1}{4} \cdot \frac{3}{4} =$$

Exercise 35 – Level 2

$$\frac{1}{4} \cdot \frac{3}{4} =$$

Exercise 35 – Level 3

$$\frac{1}{4} \cdot \frac{3}{4} =$$

Exercise 36 – Solution

$$\frac{2}{4} \cdot \frac{3}{4} = \frac{2 \cdot 3}{4 \cdot 4} = \frac{6}{16} = \frac{3}{8}$$

Exercise 36 – Level 1

$$\frac{2}{4} \cdot \frac{3}{4} =$$
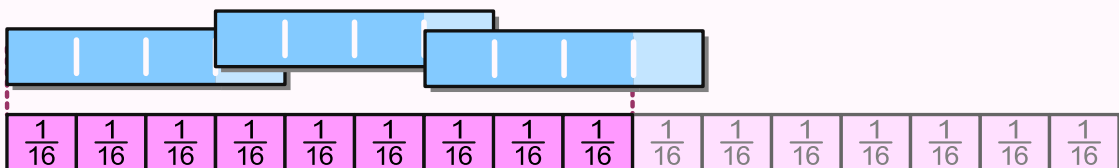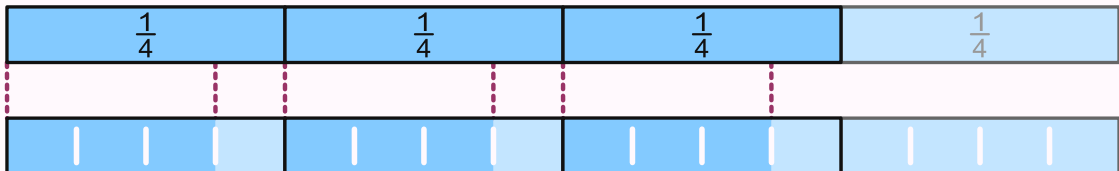
Exercise 36 – Level 2

$$\frac{2}{4} \cdot \frac{3}{4} =$$

Exercise 36 – Level 3

$$\frac{2}{4} \cdot \frac{3}{4} =$$

Exercise 37 – Solution

$$\frac{3}{4} \cdot \frac{3}{4} = \frac{3 \cdot 3}{4 \cdot 4} = \frac{9}{16}$$

Exercise 37 – Level 1

$$\frac{3}{4} \cdot \frac{3}{4} =$$

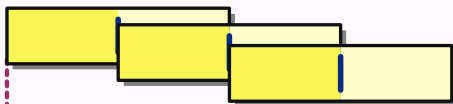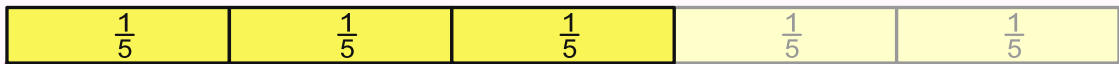## Exercise 37 – Level 2
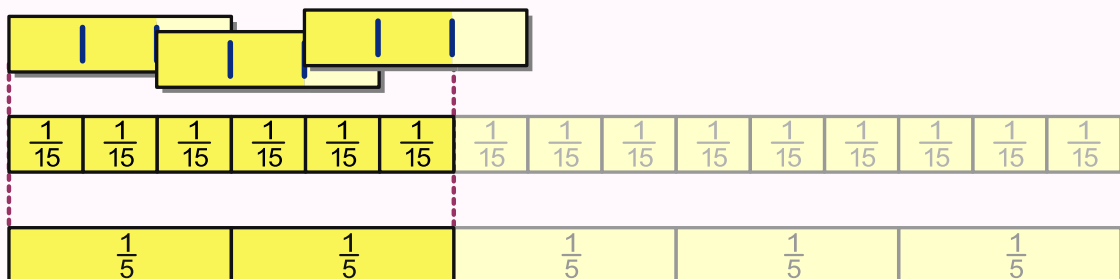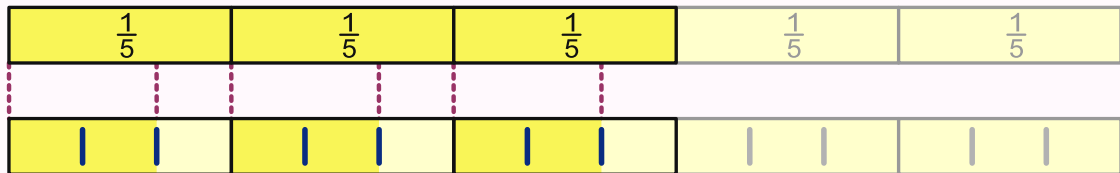
$$\frac{3}{4} \cdot \frac{3}{4} =$$

Exercise 37 – Level 3

$$\frac{3}{4} \cdot \frac{3}{4} =$$

Exercise 38 – Solution

$$\frac{1}{2} \cdot \frac{3}{5} = \frac{1 \cdot 3}{2 \cdot 5} = \frac{3}{10}$$

$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$

$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

Exercise 38 – Level 1

$$\frac{1}{2} \cdot \frac{3}{5} =$$

Exercise 38 – Level 2

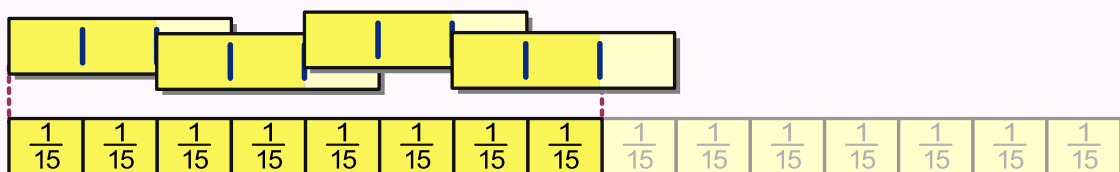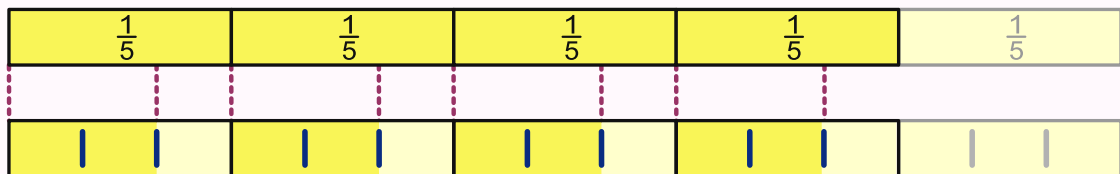$$\frac{1}{2} \cdot \frac{3}{5} =$$

Exercise 38 – Level 3

$$\frac{1}{2} \cdot \frac{3}{5} =$$

Exercise 39 – Solution

$$\frac{2}{3} \cdot \frac{3}{5} = \frac{2 \cdot 3}{3 \cdot 5} = \frac{6}{15} = \frac{2}{5}$$

| $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ |

| $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ | $\frac{1}{15}$ |

| $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ | $\frac{1}{5}$ |

Exercise 39 – Level 1

$$\frac{2}{3} \cdot \frac{3}{5} =$$

Exercise 39 – Level 2

$$\frac{2}{3} \cdot \frac{3}{5} =$$

Exercise 39 – Level 3

$$\frac{2}{3} \cdot \frac{3}{5} =$$

Exercise 40 – Solution

$$\frac{2}{3} \cdot \frac{4}{5} = \frac{2 \cdot 4}{3 \cdot 5} = \frac{8}{15}$$

Exercise 40 – Level 1

$$\frac{2}{3} \cdot \frac{4}{5} =$$

Exercise 40 – Level 2

$$\frac{2}{3} \cdot \frac{4}{5} =$$

Exercise 40 – Level 3

$$\frac{2}{3} \cdot \frac{4}{5} =$$

Exercise 41 – Solution

$$\frac{3}{4} \cdot \frac{3}{5} = \frac{3 \cdot 3}{4 \cdot 5} = \frac{9}{20}$$

$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$

$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$

Exercise 41 – Level 1

$$\frac{3}{4} \cdot \frac{3}{5} =$$

Exercise 41 – Level 2

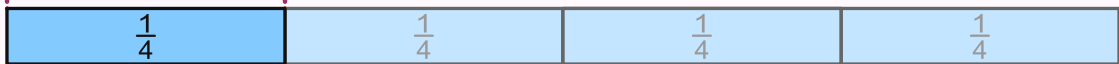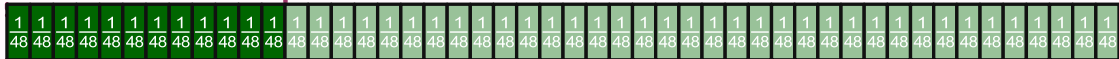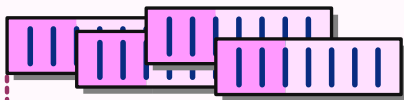$$\frac{3}{4} \cdot \frac{3}{5} =$$

Exercise 41 – Level 3

$$\frac{3}{4} \cdot \frac{3}{5} =$$

Exercise 42 – Solution

$$\frac{3}{5} \cdot \frac{4}{5} = \frac{3 \cdot 4}{5 \cdot 5} = \frac{12}{25}$$
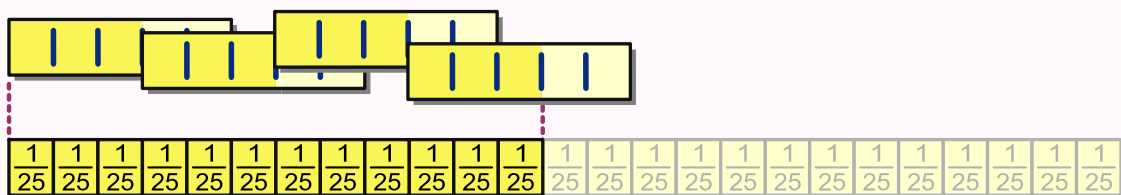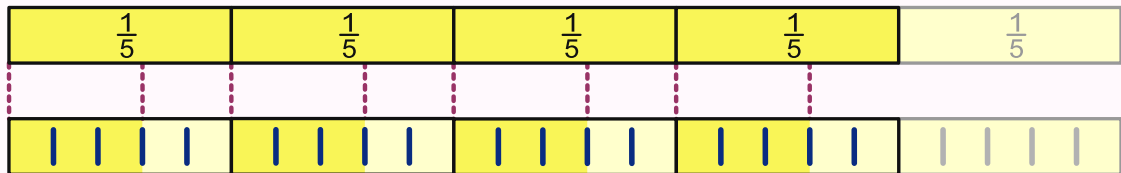
Exercise 42 – Level 1

$$\frac{3}{5} \cdot \frac{4}{5} =$$

Exercise 42 – Level 2

$$\frac{3}{5} \cdot \frac{4}{5} =$$
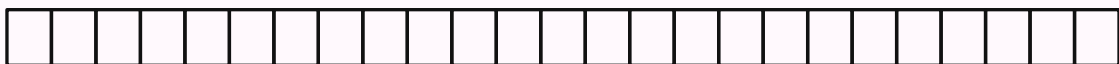
Exercise 42 – Level 3

$$\frac{3}{5} \cdot \frac{4}{5} =$$

Exercise 43 – Solution

$$\frac{3}{6} \cdot \frac{4}{5} = \frac{3 \cdot 4}{6 \cdot 5} = \frac{12}{30} = \frac{2}{5}$$
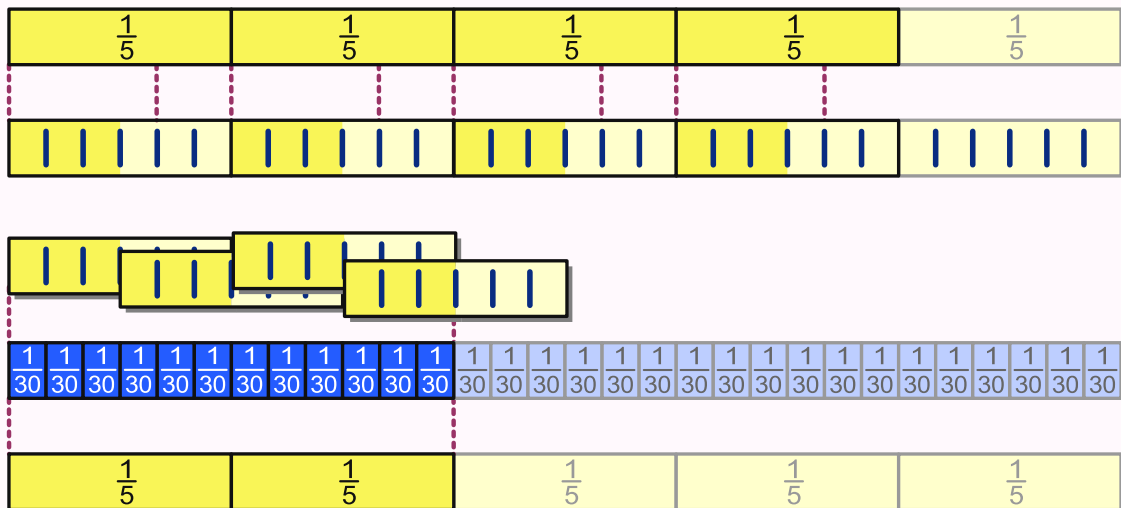
Exercise 43 – Level 1

$$\frac{3}{6} \cdot \frac{4}{5} =$$
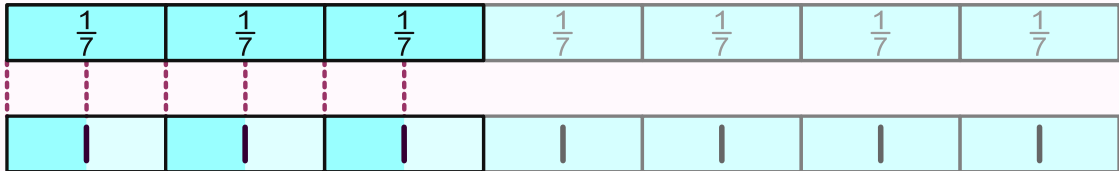
Exercise 43 – Level 2

$$\frac{3}{6} \cdot \frac{4}{5} =$$

Exercise 43 – Level 3

$$\frac{3}{6} \cdot \frac{4}{5} =$$

Exercise 44 – Solution

$$\frac{2}{3} \cdot \frac{4}{6} = \frac{2 \cdot 4}{3 \cdot 6} = \frac{8}{18} = \frac{4}{9}$$
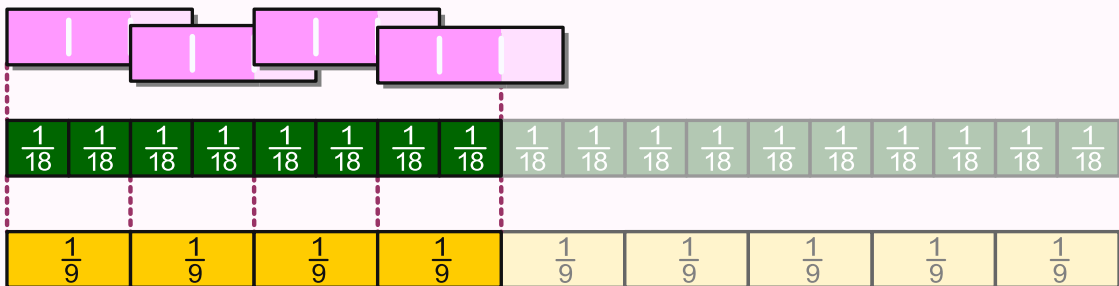
Exercise 44 – Level 1

$$\frac{2}{3} \cdot \frac{4}{6} =$$

Exercise 44 – Level 2

$$\frac{2}{3} \cdot \frac{4}{6} =$$

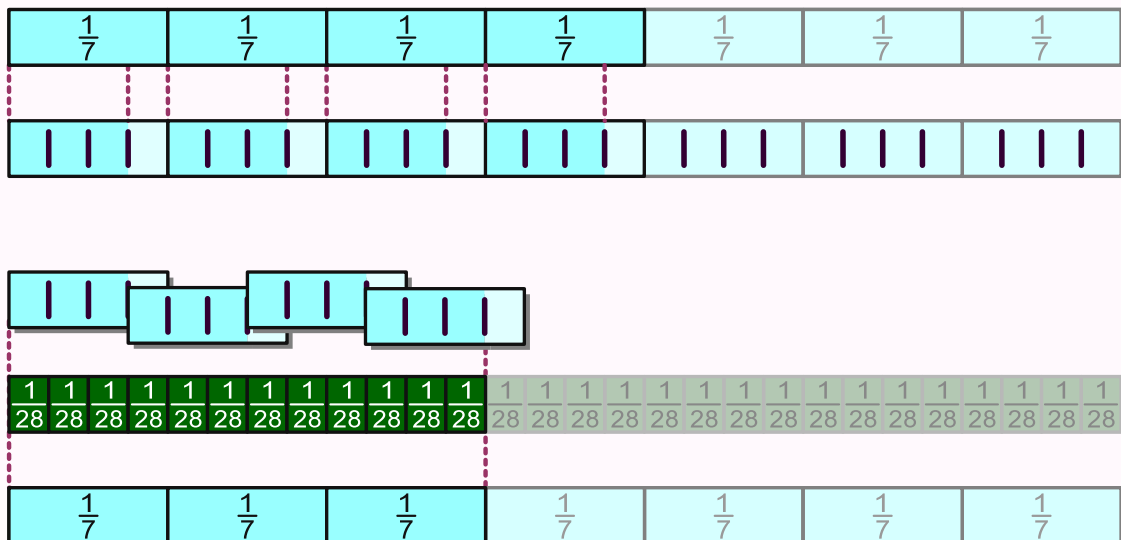**Exercise 44 – Level 3**

$$\frac{2}{3} \cdot \frac{4}{6} =$$

Exercise 45 – Solution

$$\frac{3}{8} \cdot \frac{4}{6} = \frac{3 \cdot 4}{8 \cdot 6} = \frac{12}{48} = \frac{1}{4}$$

| $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ |

| $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ | $\frac{1}{4}$ |

Exercise 45 – Level 1

$$\frac{3}{8} \cdot \frac{4}{6} =$$

Exercise 45 – Level 2

$$\frac{3}{8} \cdot \frac{4}{6} =$$

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Exercise 45 – Level 3

$$\frac{3}{8} \cdot \frac{4}{6} =$$

Exercise 46 – Solution

$$\frac{1}{2} \cdot \frac{3}{7} = \frac{1 \cdot 3}{2 \cdot 7} = \frac{3}{14}$$

Exercise 46 – Level 1

$$\frac{1}{2} \cdot \frac{3}{7} =$$

Exercise 46 – Level 2

$$\frac{1}{2} \cdot \frac{3}{7} =$$

Exercise 46 – Level 3

$$\frac{1}{2} \cdot \frac{3}{7} =$$

Exercise 47 – Solution

$$\frac{2}{3} \cdot \frac{4}{7} = \frac{2 \cdot 4}{3 \cdot 7} = \frac{8}{21}$$
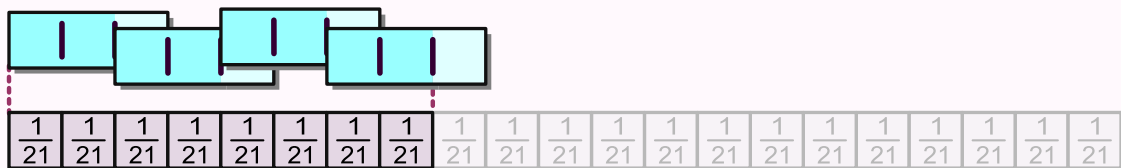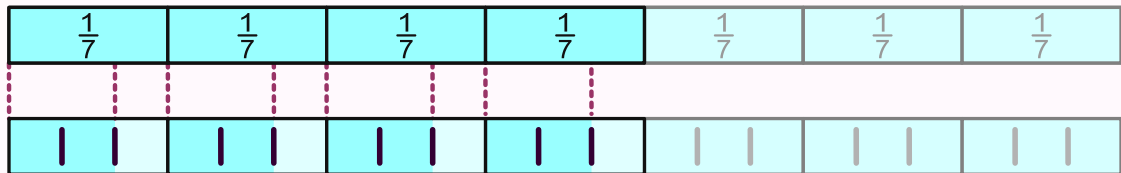
Exercise 47 – Level 1

$$\frac{2}{3} \cdot \frac{4}{7} =$$

Exercise 47 – Level 2
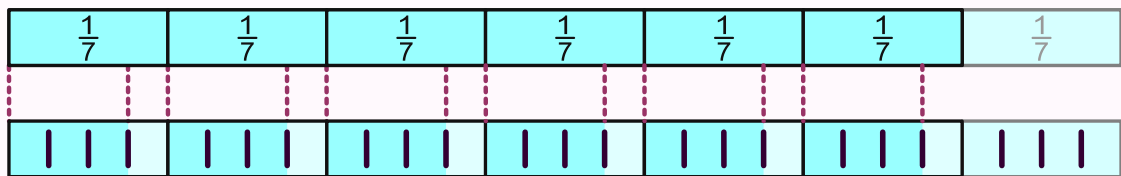
$$\frac{2}{3} \cdot \frac{4}{7} =$$

Exercise 47 – Level 3

$$\frac{2}{3} \cdot \frac{4}{7} =$$

Exercise 48 – Solution

$$\frac{3}{4} \cdot \frac{4}{7} = \frac{3 \cdot 4}{4 \cdot 7} = \frac{12}{28} = \frac{3}{7}$$

Exercise 48 – Level 1

$$\frac{3}{4} \cdot \frac{4}{7} =$$

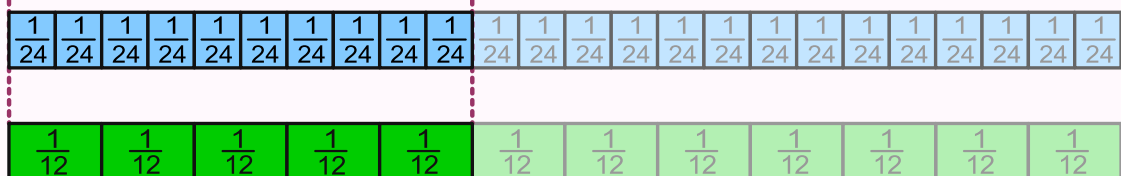**Exercise 48 – Level 2**
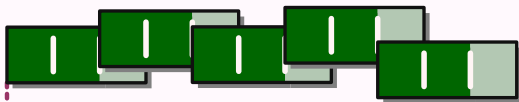
$$\frac{3}{4} \cdot \frac{4}{7} =$$

Exercise 48 – Level 3

$$\frac{3}{4} \cdot \frac{4}{7} =$$

Exercise 49 – Solution

$$\frac{3}{4} \cdot \frac{5}{7} = \frac{3 \cdot 5}{4 \cdot 7} = \frac{15}{28} = \frac{9}{14}$$
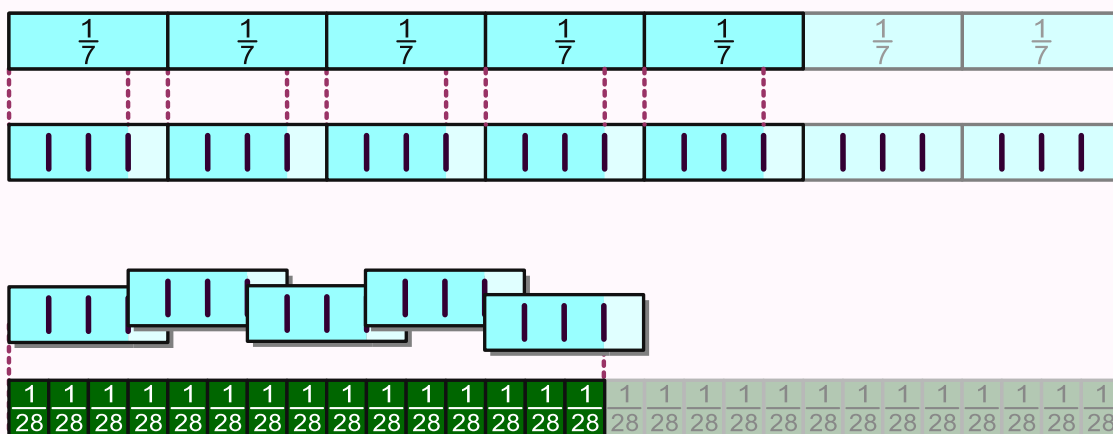
Exercise 49 – Level 1

$$\frac{3}{4} \cdot \frac{5}{7} =$$
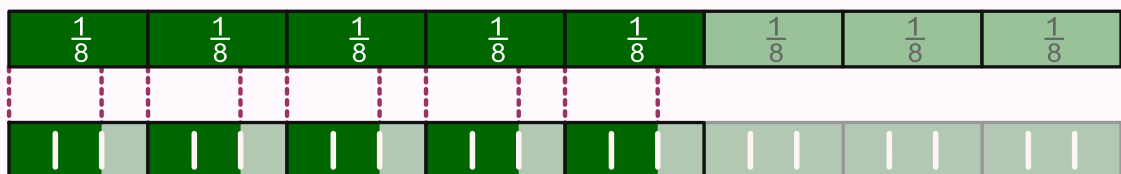
Exercise 49 – Level 2

$$\frac{3}{4} \cdot \frac{5}{7} =$$

Exercise 49 – Level 3

$$\frac{3}{4} \cdot \frac{5}{7} =$$

Exercise 50 – Solution

$$\frac{3}{4} \cdot \frac{6}{7} = \frac{3 \cdot 6}{4 \cdot 7} = \frac{18}{28} = \frac{9}{14}$$
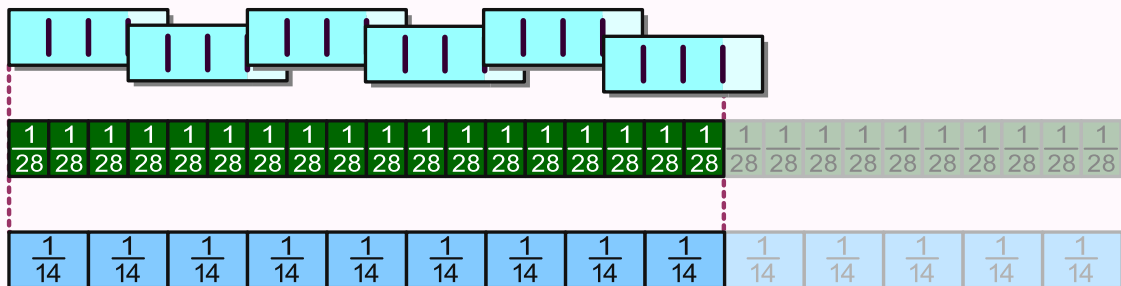
Exercise 50 – Level 1

$$\frac{3}{4} \cdot \frac{6}{7} =$$

Exercise 50 – Level 2

$$\frac{3}{4} \cdot \frac{6}{7} =$$

Exercise 50 – Level 3

$$\frac{3}{4} \cdot \frac{6}{7} =$$

Exercise 51 – Solution

$$\frac{2}{3} \cdot \frac{5}{8} = \frac{2 \cdot 5}{3 \cdot 8} = \frac{10}{24} = \frac{5}{12}$$

Exercise 51 – Level 1

$$\frac{2}{3} \cdot \frac{5}{8} =$$
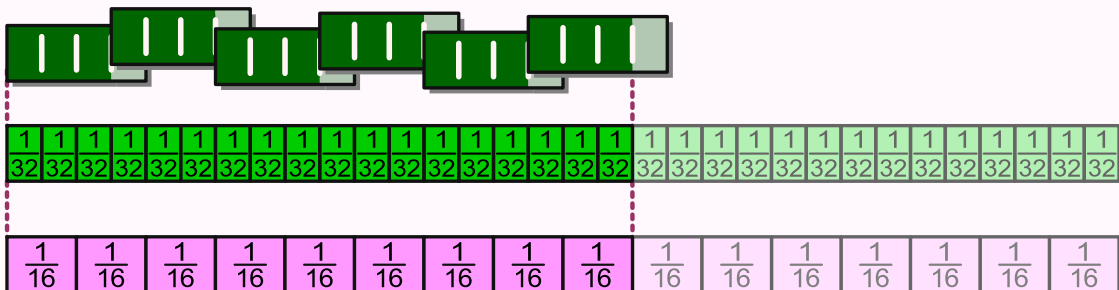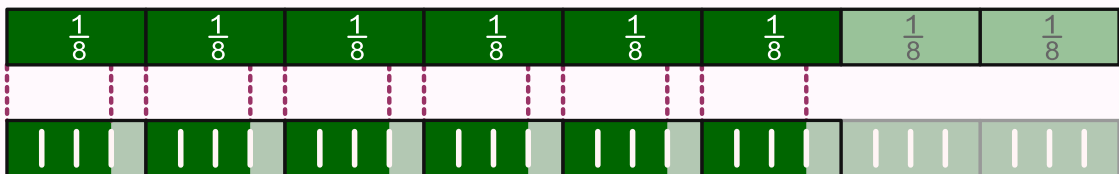
Exercise 51 – Level 2

$$\frac{2}{3} \cdot \frac{5}{8} =$$

Exercise 51 – Level 3

$$\frac{2}{3} \cdot \frac{5}{8} =$$

Exercise 52 – Solution

$$\frac{3}{4} \cdot \frac{6}{8} = \frac{3 \cdot 6}{4 \cdot 8} = \frac{18}{32} = \frac{9}{16}$$

Exercise 52 – Level 1

$$\frac{3}{4} \cdot \frac{6}{8} =$$

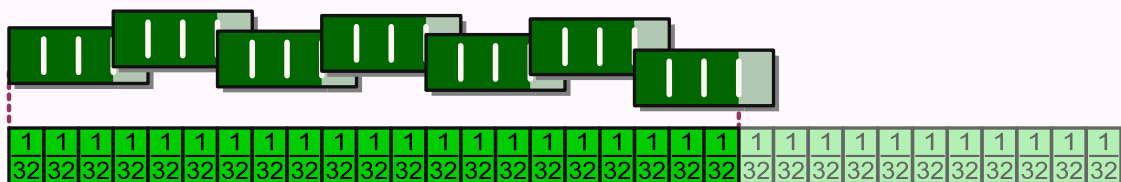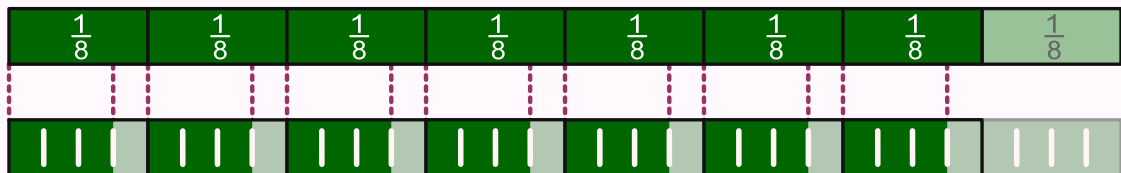**Exercise 52 – Level 2**

$$\frac{3}{4} \cdot \frac{6}{8} =$$

Exercise 52 – Level 3

$$\frac{3}{4} \cdot \frac{6}{8} =$$

Exercise 53 – Solution

$$\frac{3}{4} \cdot \frac{7}{8} = \frac{3 \cdot 7}{4 \cdot 8} = \frac{21}{32}$$
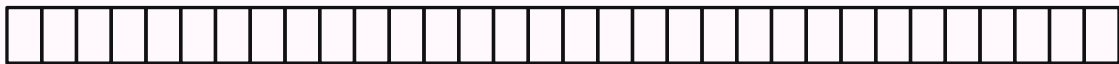
Exercise 53 – Level 1

$$\frac{3}{4} \cdot \frac{7}{8} =$$

Exercise 53 – Level 2
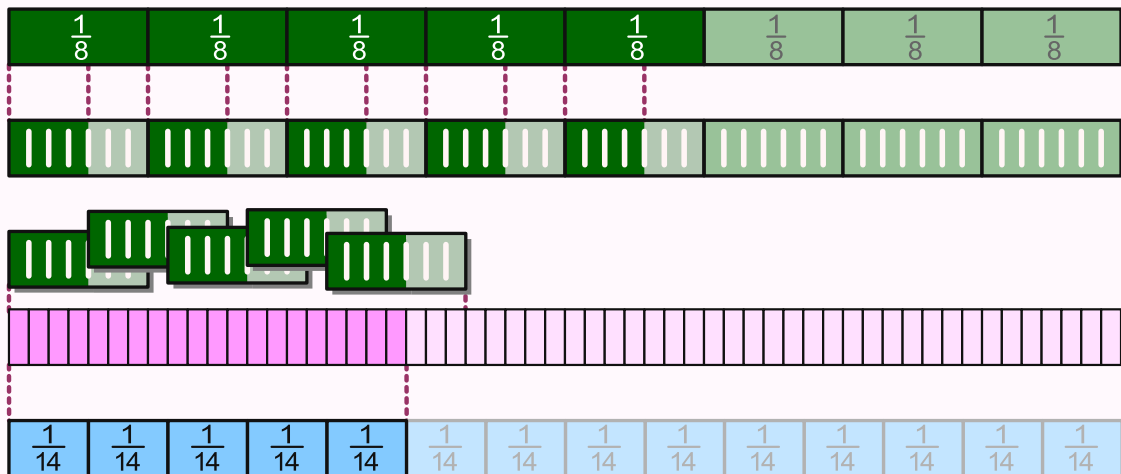
$$\frac{3}{4} \cdot \frac{7}{8} =$$

Exercise 53 – Level 3
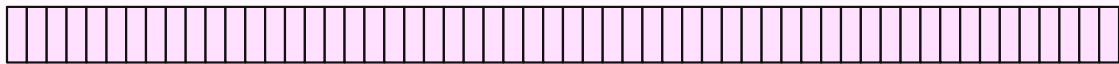
$$\frac{3}{4} \cdot \frac{7}{8} =$$

Exercise 54 – Solution

$$\frac{4}{7} \cdot \frac{5}{8} = \frac{4 \cdot 5}{7 \cdot 8} = \frac{20}{56} = \frac{5}{14}$$

Exercise 54 – Level 1

$$\frac{4}{7} \cdot \frac{5}{8} =$$

Exercise 54 – Level 2

$$\frac{4}{7} \cdot \frac{5}{8} =$$

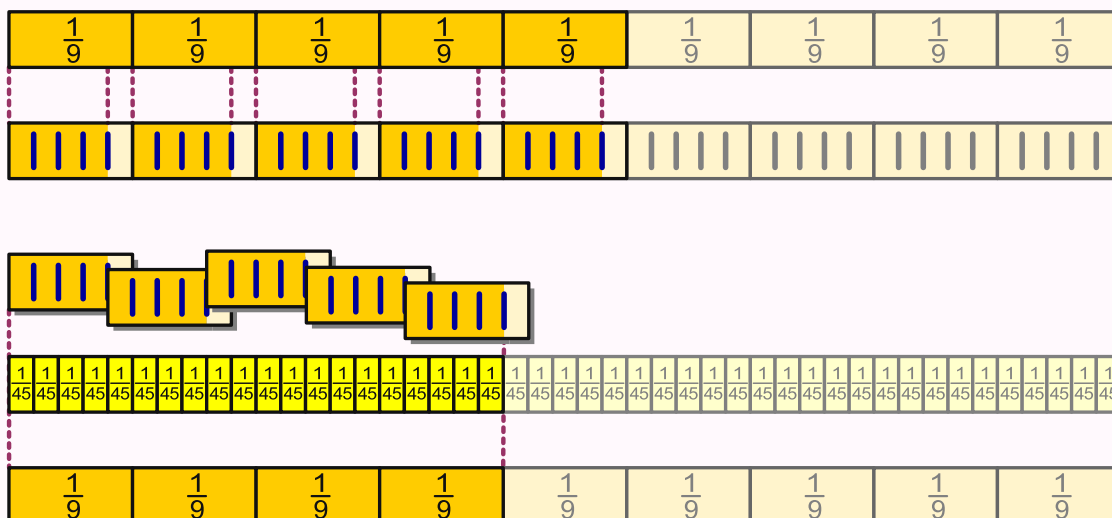| $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ |

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Exercise 54 – Level 3

$$\frac{4}{7} \cdot \frac{5}{8} =$$

Exercise 55 – Solution

$$\frac{4}{5} \cdot \frac{5}{9} = \frac{4 \cdot 5}{5 \cdot 9} = \frac{20}{45} = \frac{4}{9}$$

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Exercise 55 – Level 1

$$\frac{4}{5} \cdot \frac{5}{9} =$$

Exercise 55 – Level 2

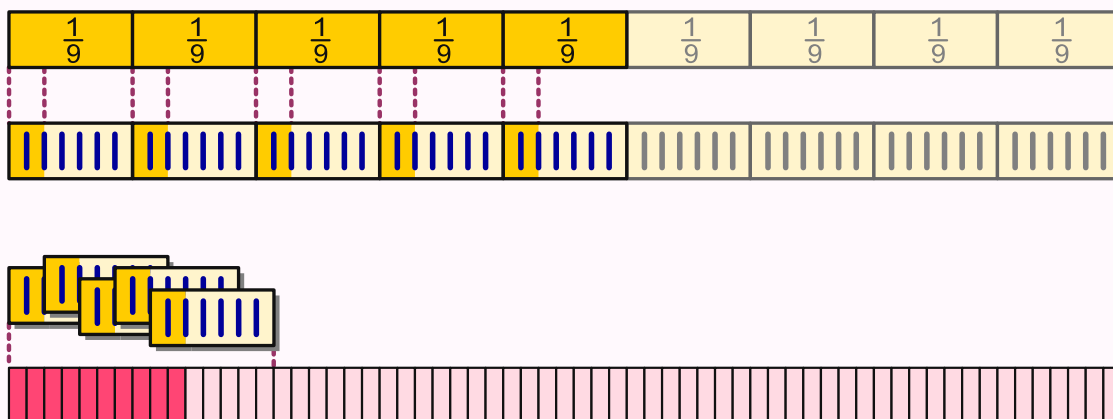$$\frac{4}{5} \cdot \frac{5}{9} =$$

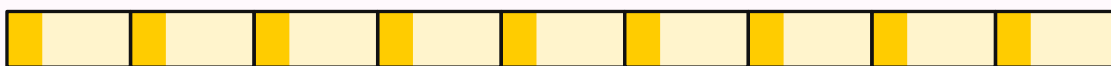**Exercise 55 – Level 3**

$$\frac{4}{5} \cdot \frac{5}{9} =$$

Exercise 56 – Solution

$$\frac{2}{7} \cdot \frac{5}{9} = \frac{2 \cdot 5}{7 \cdot 9} = \frac{10}{63}$$

Exercise 56 – Level 1

$$\frac{2}{7} \cdot \frac{5}{9} =$$

| $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ |

Exercise 56 – Level 2

$$\frac{2}{7} \cdot \frac{5}{9} =$$

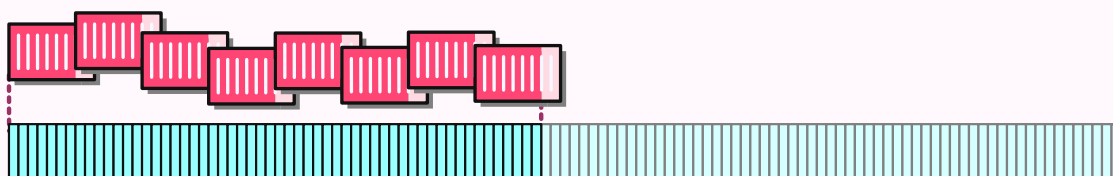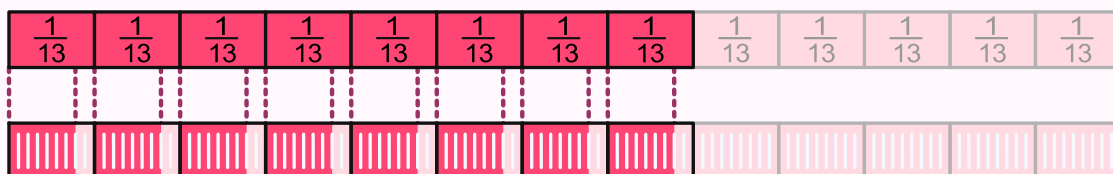| $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ | $\frac{1}{9}$ |

Exercise 56 – Level 3
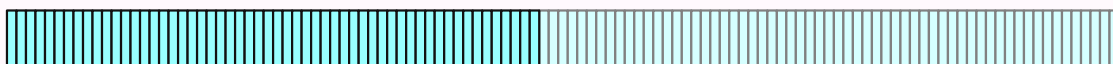
$$\frac{2}{7} \cdot \frac{5}{9} =$$

Exercise 57 – Solution

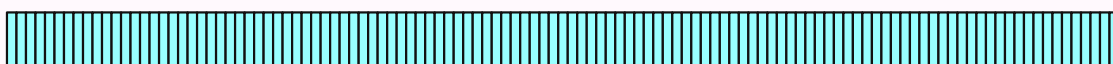$$\frac{7}{9} \cdot \frac{8}{13} = \frac{7 \cdot 8}{9 \cdot 13} = \frac{56}{117}$$

Exercise 57 – Level 1

$$\frac{7}{9} \cdot \frac{8}{13} =$$

Exercise 57 – Level 2

$$\frac{7}{9} \cdot \frac{8}{13} =$$

Exercise 57 – Level 3

$$\frac{7}{9} \cdot \frac{8}{13} =$$