## Lesson 6: Multiply Fractions

* Let’s multiply two non-unit fractions using diagrams and expressions.

### Warm-up: Which One Doesn’t Belong: More Pieces

Which one doesn’t belong?

A

B

C

D

### 6.1: Many Expressions

Explain or show how each expression can represent the area of the shaded region in square units. Be prepared to share your thinking.



1. $\frac{8}{30}$
2. $2×4×\left(\frac{1}{5}×\frac{1}{6}\right)$
3. $\frac{2}{6}×\frac{4}{5}$

### 6.2: More Patterns

1. Complete the table.

| * diagram
 | * multiplicationexpression
 | * shaded area(square units)
 |
| --- | --- | --- |
| * ASquare, length and width, 1. Partitioned into 4 rows of 5 of the same size rectangles. 6 rectangles shaded.
 |  |  |
| * BSquare, length and width, 1. Partitioned into 4 rows of 5 of the same size rectangles. 12 rectangles shaded.
 |  |  |

| * diagram
 | * multiplicationexpression
 | * shaded area(square units)
 |
| --- | --- | --- |
| * CDiagram. Square, length and width, 1. Partitioned into 4 rows of 5 of the same size rectangles. 20 rectangles shaded.
 |  |  |
| * DDiagram. Rectangle. Length, 2. Width, 1. Partitioned into 4 rows of 10 of the same size rectangles. 24 rectangles shaded.
 |  |  |

1. What patterns do you notice in the table?
2. Explain or show how the expression $\frac{6×4}{5×4}$ represents the last diagram in the table.



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