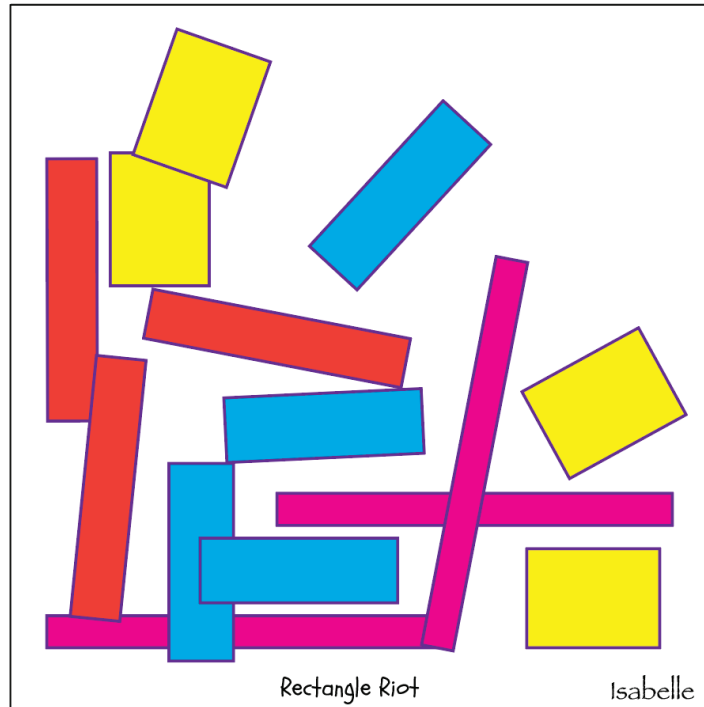
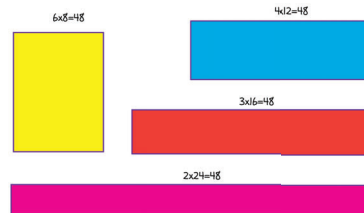


Multiplication Art Rioting Rectangles



$$\begin{array}{r} 48 \\ \hline 1 \times 48 \\ 2 \times 24 \\ 3 \times 16 \\ 4 \times 12 \\ \hline 6 \times 8 \end{array}$$

Isabelle Hoag M. Ed.
Director of Education
UnCommon-Core.com

Hello Teachers,

Thank you for downloading this handout. After decades of teaching, now I am sharing some of the activities I designed for my students and some new ones as well.

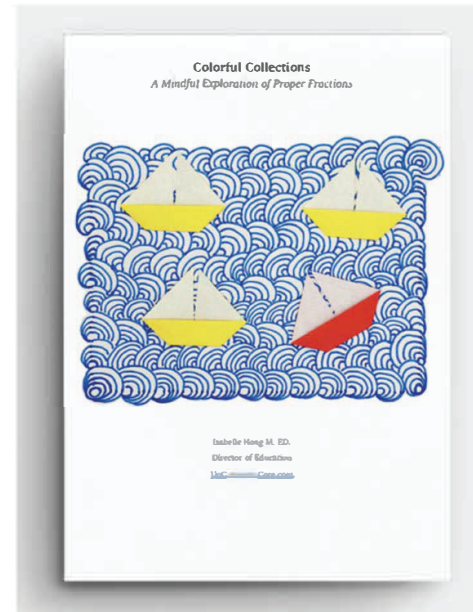
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Also, visit my Teachers Pay Teachers store UnCommon-Core dot com.

Thank you again. All the best,

Isabelle

Isabelle Hoag M.Ed.
Director of Education
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Rioting Rectangles! Instructions

Today you will be making a piece of artwork based on multiplication.

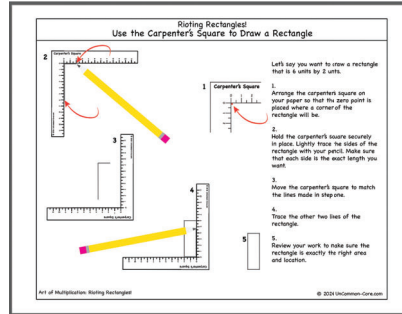
1. Choose a number that has at least four pairs of factors. Find all the factors of that number.

Factors of Forty-eight	
48	
1	x 48
2	x 24
3	x 16
4	x 12
6	x 8

Forty-eight is a composite number with ten factors.

Forty-eight is a multiple of 1, 2, 3, 4, 6, 8, 12, 16, 24, and 48.

1, 2, 3, 4, 6, 8, 12, 16, 24, 48

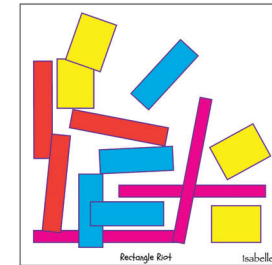


4. Begin your artwork by lightly drawing rectangles on your paper. Make sure to use each rectangle at least once.

2. Use your planning page to draw rectangles that go with each pair of factors.

Rioting Rectangles! Planning Page	
Title, Materials, and More Ideas:	Rectangles and Color Assignments:
Factor Pairs of:	

5. When you are done with drawing rectangles, fill them with color. Use the planning page to make sure each shape is the correct color.



3. Will you create rioting rectangle art or relaxing rectangle art?

Which colors and compositional elements go with your choice?

Assign colors to each sample rectangle on your planning page.

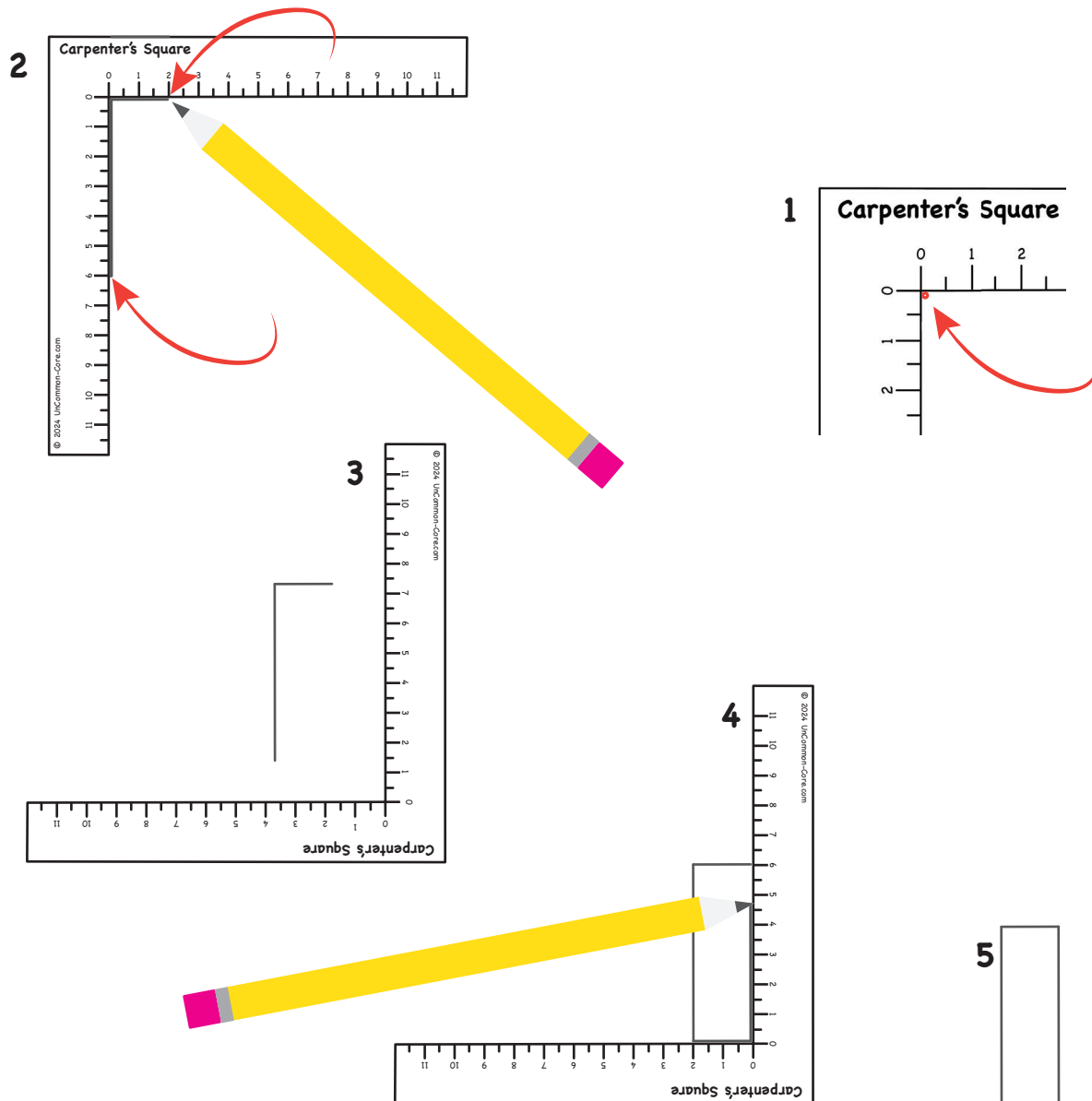
Information Label	
Artist's Name:	Isabelle
Title, year:	Rectangle Riot, 2024
Materials used:	Printer paper, pencil, markers
Notes:	Each of the rectangles has the same area. The length and width of the rectangle are factors which multiply to 48. Shapes which are congruent are the same color.

6. Let your artwork dry if needed. Then outline each rectangle with black lines. Use a ruler or straight edge to make the lines straight if you want.

7. Write an exhibit label to go next to your artwork when it is on display.

Rioting Rectangles!

Use the Carpenter's Square to Draw a Rectangle



Let's say you want to draw a rectangle that is 6 units by 2 units.

1. Arrange the carpenter's square on your paper so that the zero point is placed where a corner of the rectangle will be.
2. Hold the carpenter's square securely in place. Lightly trace the sides of the rectangle with your pencil. Make sure that each side is the exact length you want.
3. Move the carpenter's square to match the lines made in step one.
4. Trace the other two lines of the rectangle.
5. Review your work to make sure the rectangle is exactly the right area and location.

Carpenter's Square



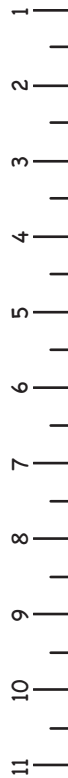
Carpenter's Square



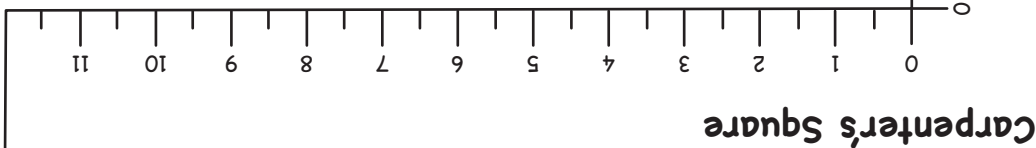
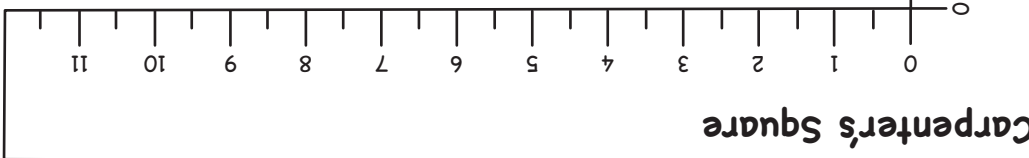
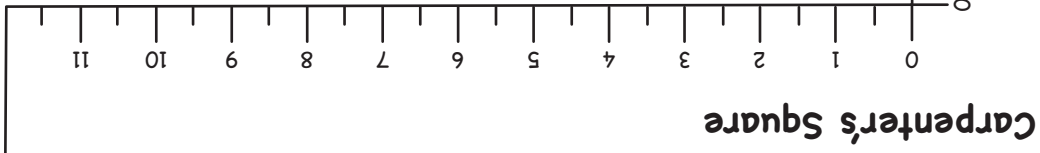
Rioting Rectangles! Carpenter's Squares

Print on heavy paper, cardstock, or transparencies. Consider pasting to backing or laminating before cutting out.

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Rioting Rectangles! Planning Page

name

Title, Materials, and More Ideas:

Rectangles and Color Assignments:

Factor Pairs of:

Rioting Rectangles! Information Labels A

Information Label

Artist's Name:

Title of artwork, year it was made:

Materials used:

Notes about math used in design:

Information Label

Artist's Name:

Title of artwork, year it was made:

Materials used:

Notes about math used in design:

Information Label

Artist's Name:

Title of artwork, year it was made:

Materials used:

Notes about math used in design:

Information Label

Artist's Name:

Title of artwork, year it was made:

Materials used:

Notes about math used in design:

Rioting Rectangles! Information Labels B

Information Label

Artist's Name:

Title, year:

Materials used:

Notes:

Information Label

Artist's Name:

Title, year:

Materials used:

Notes:

Information Label

Artist's Name:

Title, year:

Materials used:

Notes:

Information Label

Artist's Name:

Title, year:

Materials used:

Notes:

Rioting Rectangles! Directions

Information Label

Artist's Name: Isabelle

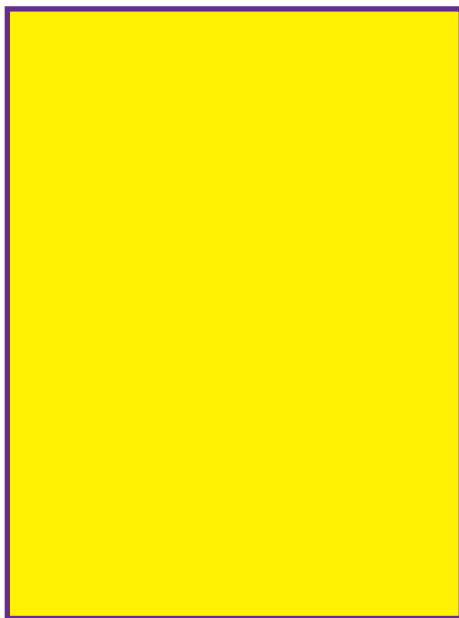
Title, year: Rectangle Riot, 2024

Materials used: Printer paper, pencil, markers

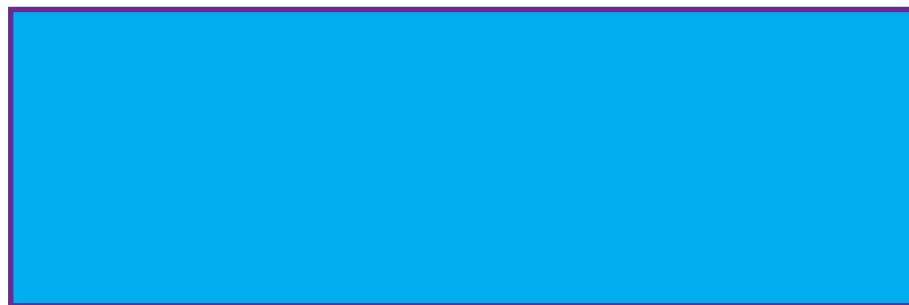
Notes: Each of the rectangles has the same area.

The length and width of the rectangle are factors which multiply to 48. Shapes which are congruent are the same color.

$$6 \times 8 = 48$$



$$4 \times 12 = 48$$

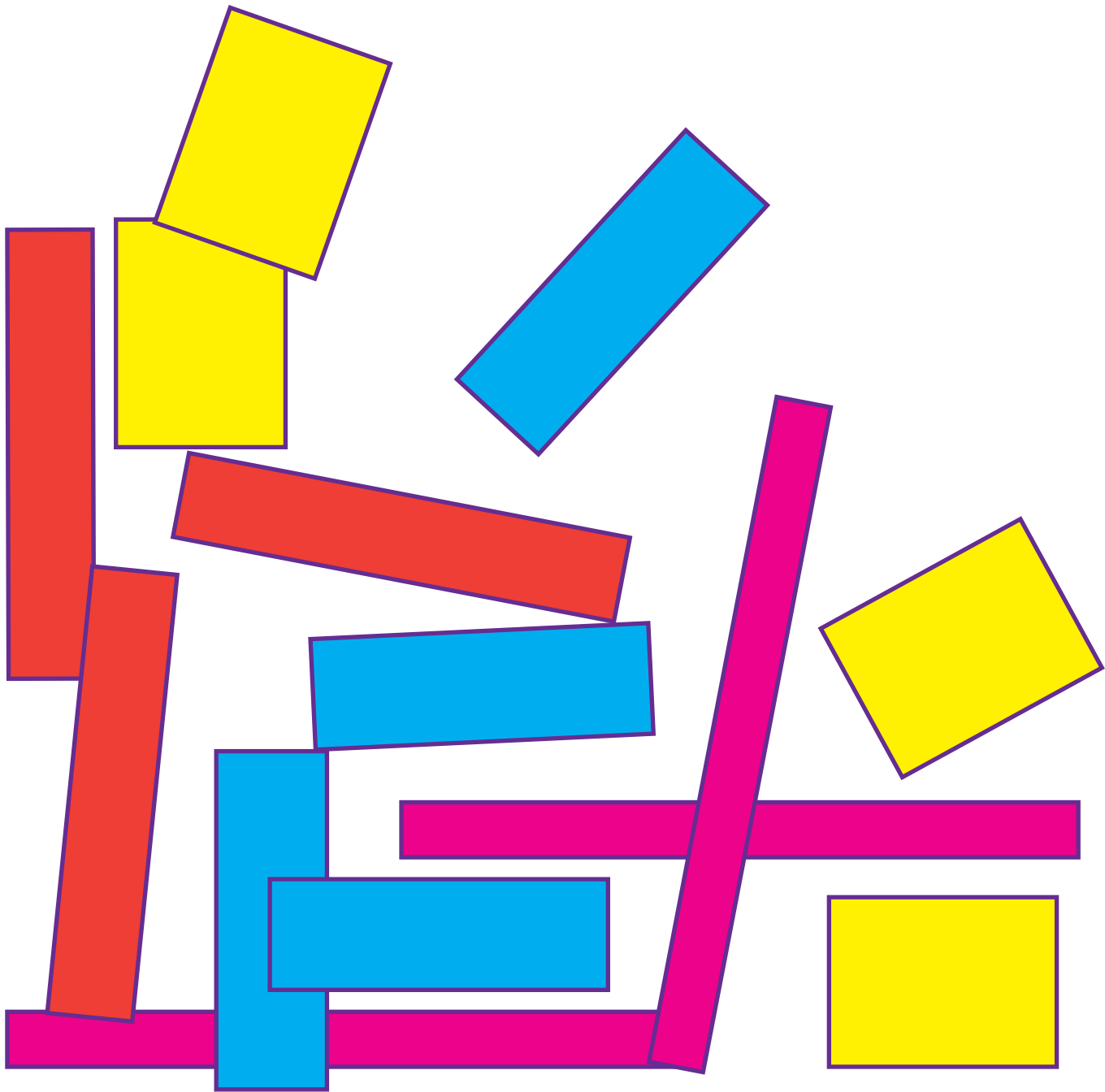


$$3 \times 16 = 48$$



$$2 \times 24 = 48$$





Rectangle Riot

Isabelle

Rioting Rectangles! Planning Page

Sample

Title, Materials, and More Ideas:

I'm going to call this artwork **-48-**. I'm using paper, pencil, carpenter's square and markers with wide tips. I'm planning to create restful rectangles; using horizontals and relaxing colors.

Factors of Forty-eight

48

$$1 \times 48$$

$$2 \times 24$$

$$3 \times 16$$

$$4 \times 12$$

$$6 \times 8$$

Forty-eight is a composite number with ten factors.

Forty-eight is a multiple of 1, 2, 3, 4, 6, 8, 12, 16, 24, and 48.

1, 2, 3, 4, 6, 8, 12, 16, 24, 48

Rectangles and Color Assignments:

$$6 \times 8 = 48$$



$$4 \times 12 = 48$$



$$3 \times 16 = 48$$



$$2 \times 24 = 48$$



Planning Page

Rectangles and Color Assignments:

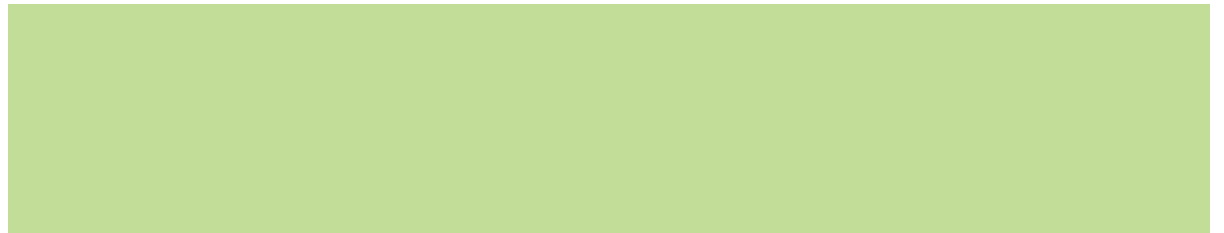
$$6 \times 8 = 48$$



$$4 \times 12 = 48$$

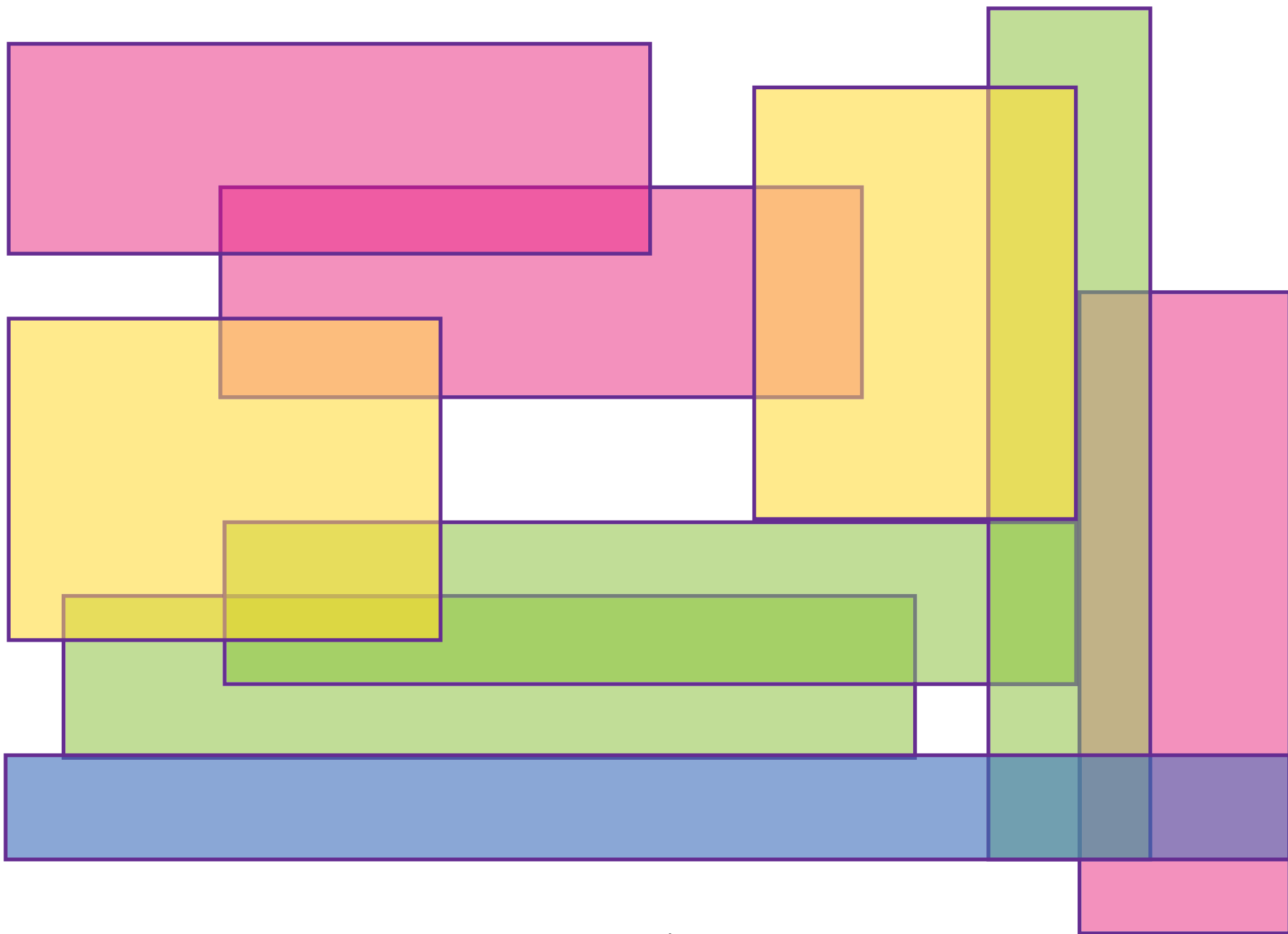


$$3 \times 16 = 48$$



$$2 \times 24 = 48$$





-48-

Isabelle

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Isabelle

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