# Models of Multiplication: Mixed Number x Fraction

You will need: journal/paper, pencil, Cuisenaire rods or other fraction manipulatives

1. Model the expression 1 ½ x ¼ in two ways.

   - Model 1 - Brown will have the value of one whole. Model 1 ½ and find the rod that is ¼ the length.

   - Model 2 – Use the distributive property: ¼ (1 + ½) = ¼ x 1 + ¼ x ½

2. Model the expression 2 ¾  x ½ in two ways.

   - Model 1 – Use Cuisenaire Rods.  Determine the whole.

   - Model 2 – Use the distributive property.

3. Can you create and model another mixed number multiplied by a fraction expression?
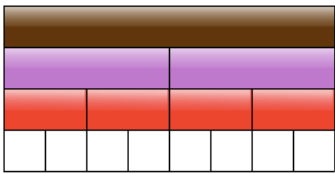
4. Create a story problem for one of the expressions.

1cm
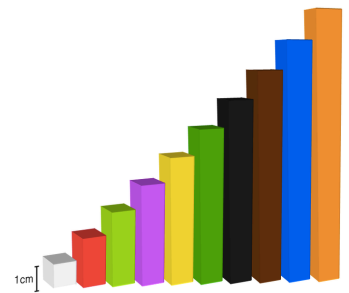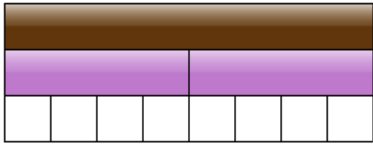
# SOLUTION 1

- If brown has the value of one, purple is ½ and white is 1/8.
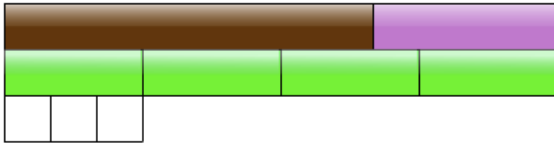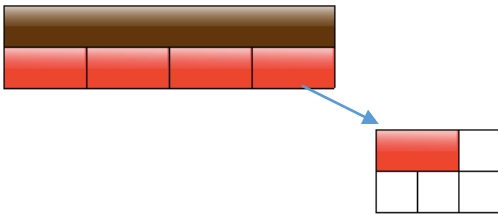
- One brown and 1 purple is equal to 1 ½. Green is ¼ of it (1 brown and 1 purple). Green is 3 white bars and 3 white is equal to 3/8.

# SOLUTION 2

- If brown has the value of one, purple is ½, red is ¼, and white is 1/8.

- One quarter of brown is one red. One quarter of purple is one white.
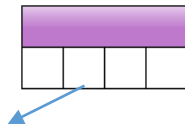
- One red and one white is 3 white or 3/8.