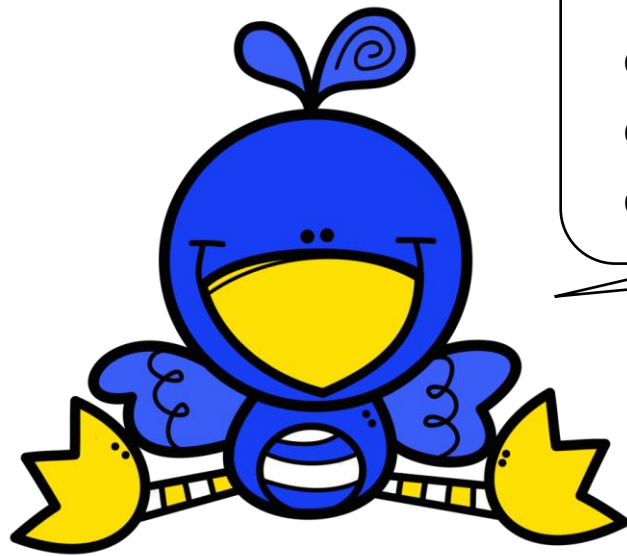


Models of Multiplication:

Whole Number x Mixed Number



The punch recipe calls for 10 gallons of juice. Mary poured in 4 jugs that each hold $2\frac{1}{3}$ gallons. Did she pour in enough juice? How do you know?

Models of Multiplication: Whole Number \times Mixed Number

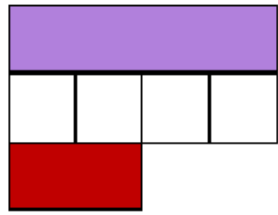
Materials:

- Recording sheet or math journal
- Cuisenaire rods and other fraction manipulatives

Directions:

- 1) Model the problem $2 \times 4\frac{1}{4}$ using manipulatives.
 - Which rod will represent 1 whole?
 - Which rod will represent $\frac{1}{4}$?
- 2) Use numbers, models, pictures and words to show how you solved the problem.
- 3) Model the expression $2 \times 3\frac{1}{2}$ in two ways.
 - Model 1 - Use Cuisenaire Rods. Determine the whole.
 - Model 2 - Use the distributive property.
- 4) Can you create and model another whole number multiplied by a mixed number?
- 5) Create a story context for one of the expressions.

Sample Solution: Maria wanted to hike 10 miles. At the park, she hiked to the waterfall and back. The trail was $4\frac{1}{4}$ miles one way. Did Maria hike 10 miles? If not, how many miles did she hike?



Purple represents one whole.
White is $\frac{1}{4}$.
Red is $\frac{1}{2}$



I built $4\frac{1}{4}$ two times using purple and white bars.
I replaced 2 white with the equivalent red. This leaves 8 purple and 1 red (2 whites).
 $2 \times 4\frac{1}{4} = 8\frac{1}{2}$

Name _____

Date _____

Models of Multiplication: Whole Number \times Mixed Number

Model the problem $2 \times 4\frac{1}{4}$ using manipulatives. Use numbers, models, pictures and words to show how you solved the problem.

Model the expression $2 \times 3\frac{1}{2}$ in two ways: Cuisenaire Rods and the distributive property.

Create and model another whole number multiplied by a mixed number.

Create a story context for one of the expressions.

Graphics and Fonts

