Name: $\qquad$
Class/Block: $\qquad$ Date: $\qquad$

## Exploration: Algebraic Expressions with Number Line Model

## Getting Started:

In your browser, go to the Algebraic Expressions - Number Line Model for Multiplication applet.

- Check the Expression checkbox to see the expression.
- Move the slider next to the Expression checkbox to see a coefficient multiplied by a variable..
- Move the Variable slider to change the variable name.



## Part I.

## Explore the Number Line Model for Multiplication

- Check the Model checkbox to see the expression represented on a number line.
- Check the Explain checkbox to see an explanation of the model with the value and coefficient selected.


The example above represents the expression $\mathbf{2 m}$ when the variable $\mathbf{m}=\mathbf{3}$ and the coefficient is 2 .

## Part II.

Predict what the number line model will look like with the following values for $m$ and the coefficient:
a) coefficient $=4$ and $m=3 \quad$ 4(3)


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b) coefficient $=\mathbf{4}$ and $\mathbf{m}=\mathbf{5}$

c) coefficient $=5$ and $m=-3$

5(-3)


## Part III.

Give the expression for the model provided

1. $\qquad$

2. $\qquad$

