Multi-digit algorithms:

Scaffolding algorithms. Be able to show and do:

- expanded addition,
- expanded subtraction,
- expanded multiplication
- scaffolding division.

Standard algorithms:

- Show the standard addition and/or subtraction algorithm side by side with manipulatives and explanations
- Multiply with the standard algorithm
- Long divide using the standard algorithm
- answer questions about multiplication and division using the standard algorithm (similar to homework questions)

Other algorithms and representations:

- Draw a proportional array for a 2-digit product on a grid
- Draw a non-proportional array for a 2- or 3-digit product
- Solve a multiplication problem using the lattice algorithm.
- Draw out manipulative for a division problem with a small divisor (6 or less)

Multiplication and division concepts and properties:

Multiplication properties:

- Draw out and write sentences to explain the commutative property of multiplication
- Draw out and write sentences to explain the distributive property of multiplication

Basic facts:

- Be able to explain how to figure out a multiplication fact problem in more than one way using basic fact strategies

Word problems and representations:

- Write a word problem that is multiplication, partitive division or measurement division
- Identify a word problem as either multiplication, partitive division or measurement division
- Describe how to solve a word problem with small numbers using direct modeling
- Draw a bar diagram to represent a multiplication or division word problem.