

HOMEWORK: 1, 3, 5, 7, 9, 13, 15, 17, 19, 21, 23, 25, 29, 33, 35

OBJECTIVES:

- ❖ Use base-ten blocks to compute whole number addition and subtraction problems
- ❖ Draw a pictorial model for arithmetic algorithms
- ❖ Use and demonstrate use of partial sums and partial differences

ADDITION ALGORITHMS:

1. **Compensation:** Numbers are adjusted in a way that makes computation easier, but leaves the final result the same.

$$24 + 32$$

2. **Partial Sums or Breaking Apart:** Use place value to break apart one or both of the addends.

$$24 + 32$$

3. **Partial Sums Algorithm** is an **Expanded Algorithm**, which is longer, but easier to understand.

tens	ones
2	4
+3	2

4. **Standard Algorithm:** The regrouping method.

5. **USING THE ADDITION ALGORITHMS:**

A. Compute $89 + 34$ with the breaking apart algorithm

B. Compute $89 + 34$ with the standard algorithm

- C. Compute $243 + 567$ with the partial sums method and the base-ten blocks.

6. **SUBTRACTION ALGORITHMS:**

- A. Find $89 - 42$ using partial differences and the base-ten blocks

- B. Find $765 - 329$ using partial differences, then use the standard algorithm