



Number Computation Fluency

You want students to solve any way they can at first, and then develop efficient and accurate strategies which can be generalized. By choosing problems carefully, you can help to get kids to develop strategies and become fluent.

3rd Grade

Fluent with:

- ⊙ Doubles and their neighbors:
3+4, 5+4, 6+6, 6+5, 6+7, 7+7, 7+6, 7+8
- ⊙ Adding and subtracting of numbers to 19
- ⊙ Adding and subtracting 9 or 8 from any number:
17+9, 25-9, 46-8, 67+8, 53-9, 34+9

Ease with:

- Doubling any number through 15
- Adding and subtracting a one-digit number with any two-digit number
- Adding and subtracting 10 and multiples of 10 from any 2-digit number
- Adding and subtracting two-digit number with any other two-digit number
- Multiplication relationships to 5 x 5

4th Grade

(Fluent with?) All of the 3rd Grade skills, plus:

Fluent with:

- ⊙ Adding and subtracting using any multiple of 100
347+400, 617-200, 309-500

Ease with:

- Adding and subtracting any three-digit number with any other three-digit number

Fluent with:

- ⊙ Multiplication through 6 x 6

Ease with:

- Multiplication with any one-digit by one-digit numbers

Fluent with:

- ⊙ Multiplying a number 10 or 100
- ⊙ Dividing multiples of 10 by 10
120-10, 280-10,
- ⊙ Doubling any number through 20

Ease with:

- Doubling any number to 50

Begin practice with:

- Multiplying two-digit numbers with one-digit numbers

5th Grade

(Fluent with?) All of the 3rd and 4th grade skills plus:

Fluent with:

- ⊙ Halving an number through 10
- ⊙ Halving any multiple of 10

Ease with:

- Halving any number through 20
- Find one-fourth of any number to 10
- Doubling any number through 100
- Combinations that make 100
 - ▶ Given this number, what would you need to add to get to make 100?
45, 82, 67, etc
- Multiplying two-digit by one-digit numbers
- Multiplying two-digit by two-digit numbers (keeping track with pencil might be needed here)
- Two-digit by one-digit division
- Three-digit by one-digit division