**Number Talks**

Standards Addressed by these Number Talks:

* 4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm

Pose these number sentences to students and ask them to solve them mentally. The student’s role is to demonstrate fluent strategies for solving these problems using place value, properties of operations, and/or the relationship between addition and subtraction. The teacher’s role is to pose the problem, give students a few minutes to solve the problems and then lead a discussion about how they solved the problems. Teachers will need to write down students’ thinking using number sentences that will show how students used place value, the properties of operations, and or the relationship between addition and subtraction. You need not pose all at once, but instead do a few each week during the unit (posing one problem in one setting). Conversations may range from 10-20 minutes in length. See the article *Number Talks Build Numerical Reasoning (***October 2011 •** teaching children mathematics) for more information.

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| **Number Talks for Addition** | **Number Talks for Subtraction** |
| 25 + 70125 + 70154 + 100154 + 300154 + 350334 + 111216 + 127156 + 85158 + 221115 + 283111 + 999222 + 888333 + 777444 + 777340 + 295999 + 999998 + 999998 + 998 | 61-2962-3058 -2648 - 1680 – 3579 – 3480 - 6981 – 3688 – 42100 – 5199 – 50236 – 119200- 147267 – 118500 – 249425 – 1491000- 3991000- 571 |

When organizing student work for sharing, look for work that fits in these categories (see examples below) in order to expose students to all strategies explicitly stated in the standard.

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| **Number Talk Problem** | **Solved Using Place Value** | **Solved using Properties of Operations** | **Solved Using the Relationship between Addition and Subtraction** |
| 999 + 999 | 900 + 900 = 180090 + 90 = 1809 + 9 = 181800 + 180 + 18 = 1998 | (999 + 1) + (999 + 1)=1000 + 1000 – 2 = 1998 |  |
| 80 – 69 | 80 – 60 = 2020 – 9 = 11 | 80 – (69 + 1) = 1010 + 1 = 11 | 69 + 1 = 7070 + 10 = 8010 + 1 = 11 |