Mathematical Number Talks

Number Talks Process

1. Introduce/show problem.
2. Allow students to think about solving the problem in more than one way.
3. Ask students for solutions only.
4. Record all solutions.
5. Ask if anyone can justify one of the answers.
6. Allow students to explain their thinking and how they reached their solution.
7. Record their thinking without adding on so other students can follow the student's thinking.
8. Ask if anyone would like to explain another way to solve the problem.
9. Optional: Ask if anyone would like to justify a different answer.

6+2+5+1+4

*In upper elementary classrooms, making 10's problems (Friendly Numbers) are not very engaging problems. However, many students do not know how or when to use the commutative and associative properties. We believe with continued practice, over time, students will truly understand how, when, and why to use them. We recommend one problem similar to this every week, until you are confident every student can use the properties effectively and efficiently.

Grade range: 3+

Fluency Standards: 4+

SMP's: 1, 2, 3, 5, 8

Similar Problems: Any combination of addends that allows students to use the commutative or associative properties to make friendly numbers.

Counting On (Left to right)	Commutative Property with Friendly Numbers (A)	Commutative property and associative property with Friendly Numbers.	Commutative Property with Friendly Numbers (B)	Commutative Property with friendly numbers to use multiplication	SMP Questions
6+2+5+1+4 6+2=8 8+5=13 13+1=14 14+4=18 18	6+2+5+1+4 6+4=10 2+5+1=8 10+8=18 18	6+2+5+1+4 6+(2+4)+(5+1) 6+6+6=18 18	6+2+5+1+4 4+1=5 5+5=10 6+2=8 10+8=18 18	6+2+5+1+4 6+2+(5+1)+4 (Associative) 6+2+(6)+4 6+(6)+(2+4) (Commutative) 6+(6)+(6)=3x6 3x6=18	SMP 1: How can you start this problem? SMP 2: What properties of multiplication could help us in this situation? SMP 3: How can you prove your solution? SMP 5: What estimates could help us? SMP 8: Does the strategy that you like the best always work?