

# 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.

# 9x6

Grade range: 3+

Fluency Standards: 3+

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

Similar Problems: 6x9,  
60x9, 90x6, 90x60, 95x60

Decomposing	Adjustment	Skip counting	Tripling and thirds	SMP Questions
<p>9x6</p> <p>6=3+3</p> <p>9x3=27</p> <p>9x3=27</p> <p>27+27=54</p> <p>*This is just one example of decomposing. There are lots of ways to decompose.</p>	<p>9 ≈ 10</p> <p>10x6=60</p> <p>60-6=54</p> <p>*If a student uses this strategy, ask why we take away six?</p>	<p>6: 6, 12, 18, 24, 30, 36, 42, 48, 54.</p> <p>9: 9, 18, 27, 36, 45, 54.</p> <p>*If a student uses these strategies, ask which repeated addition is more efficient?</p>	<p>9x6</p> <p>9x3=27</p> <p>6÷3=2</p> <p>27x2=54</p> <p>*If students have been exposed to doubling and halving, maybe they could make a jump to using 3 in the same way.</p> <p>*When we get to 27x2, a connection could be made to 27+27. Which way is more efficient for you?</p>	<p>SMP 1: How can you start this problem?</p> <p>SMP 2: What properties of multiplication could help us in this situation?</p> <p>SMP 3: How can you prove your solution?</p> <p>SMP 5: What estimates could help us?</p> <p>SMP 8: Does the strategy that you like the best always work?</p>

