## Line Up: Student Worksheet

Name: $\qquad$

Which number is greater, $-\sqrt{ } 3^{2}$ or $(10-3 \cdot 4)$

## Group Arrangement

Students work as a class


Sets of 4 cards with numbers or expressions on the front and message on the back.

## Procedure

Arrange the numbers represented below and justify your arrangement.
$2 / 3$ of $4 \quad 1 / 4$ of $9 \quad 1 / 3$ of $6 \quad 1 / 2$ of 5
Estimate the result of each indicated operation:
$20 \cdot 23$
$251+274$
$223 \cdot 2$
600 •196

- These sets of numbers/expressions can be made as long or as complicated as you wish, depending on your class, the topic you are teaching, and the sentence you want them to use to check their results.


## Math Connection

As a result of this activity, students will have an understanding of the relative size and equivalent forms of numbers.


Classroom observation.


- Ask students to make up a set of cards in order to challenge another group of students.
- Include positive and negative numbers.
- Try some with variable expressions, which need substitutions. For example, x 2 will become smaller if $-1<\mathrm{x}<1$ but larger if x $<-1$ or $x>1$.
- Use estimate (as shown above) to practice mental computation and speed.
- Use sets of 4 cards in order. Then ask two groups of four to join, keeping in mind the relative values. Then ask two groups of eight to join, until you have all students around the room in correct order.

