

We Are SMARTER Than Our Calculators!
Activity #1:

Factorial	Evaluation
1!	
5!	
10!	
25!	
50!	
100!	
500!	
1000!	

- At what point did your calculator say “too big, I cannot do it?” _____
- What does your calculator think of the following problem? $\frac{500!}{500!}$ _____
- What do you know the answer is to $\frac{500!}{500!}$? _____
- Speculate, why didn't your calculator know that? _____

- Do you think your calculator could do this problem: $\frac{500!}{499!}$? _____
- What is the answer to $\frac{500!}{499!}$? _____
- Do you see how there are more of these types of problems that you can do that your calculator cannot? List some here: _____

Activity #2:

- Instructor will ask for five two digit numbers to be supplied by the members of the class
- The instructor will supply an additional five two digit numbers to go with those provided
- Write the five sets of numbers as displayed on the board in the space provided below

- You are to use your calculator to get the answers, but you must record each answer below the appropriate pair of numbers before proceeding to the next problem. We are going to race and the instructor will **NOT** be using a calculator. Who do you think is going to win? Circle one:
Calculators or Instructor
- Who won? _____
- How could this happen? _____
- Instructor will demonstrate how and why this works after students have done some problem solving about the method.