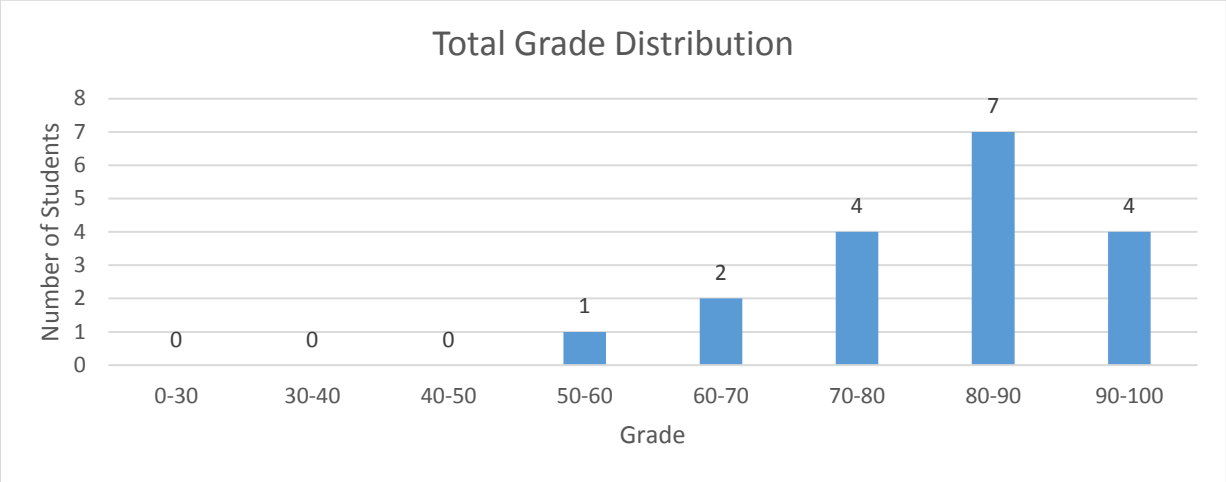
Exam 3 Report

12/13/2017

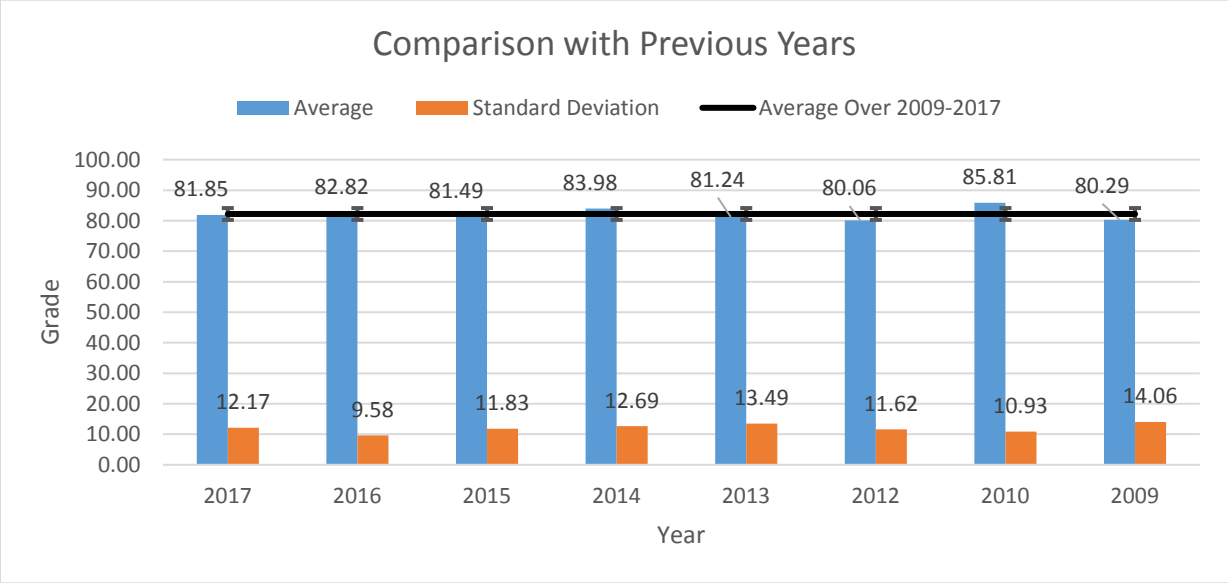
1. Summary

Total number of students	18
Attended	18
Missed	0
Number of problems	6
Average grade	81.85
Standard deviation of grades	12.17

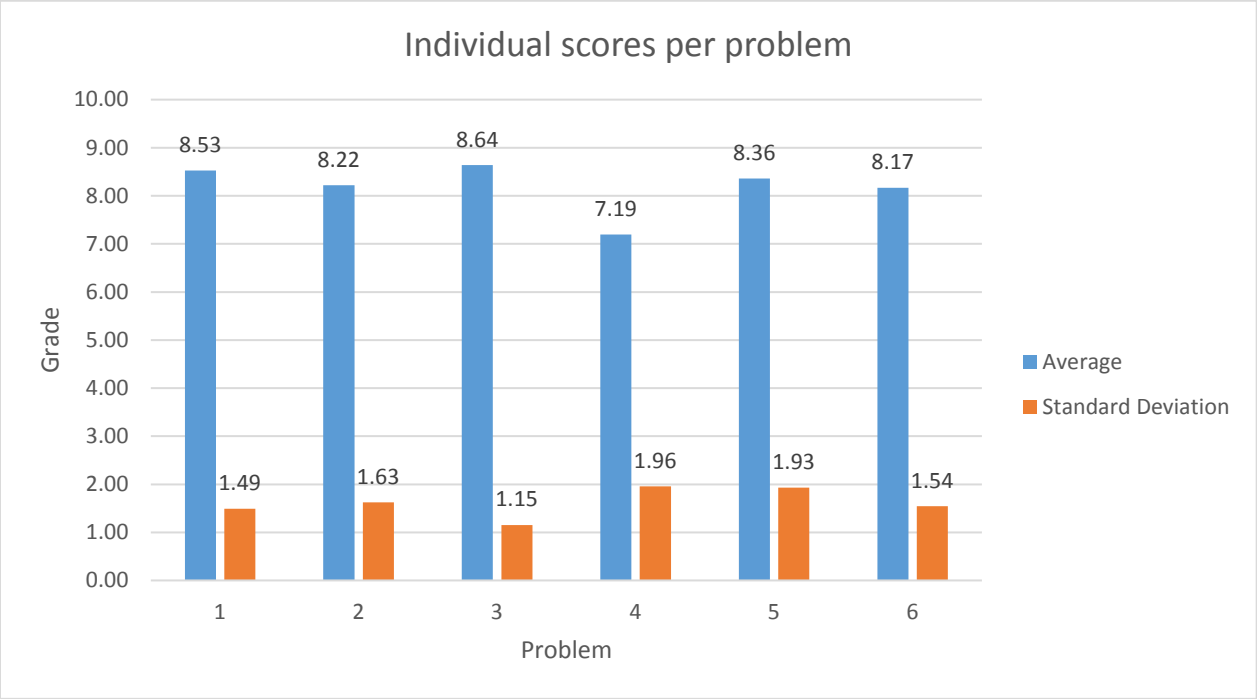
2. Grade distribution



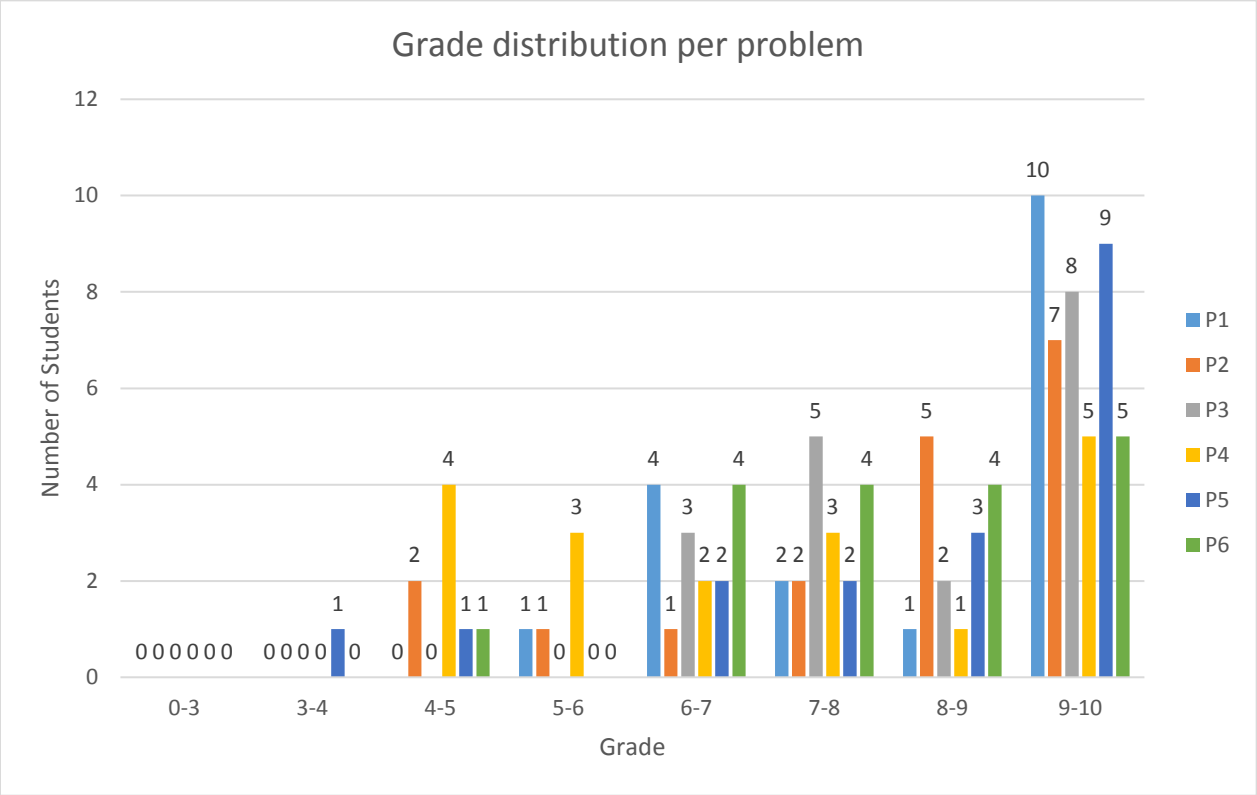
3. Comparison with past years



4. Individual problem breakdown



5. Grade distribution per problem



6. Comments

OVERALL

- All students followed the rules for the formula sheet.

PROBLEM 1

- Some students made mistakes when calculating derivate of the stream function
- Some students made mistakes when evaluating velocity at the stagnation point

PROBLEM 2

- Many students used incorrectly used the same velocity for ball and rod power calculation
- Many students could not calculated the drag with the correct characteristic area

PROBLEM 3

- Many students incorrectly used radial length of the rotor instead of chord length for the calculation of the boundary layer thickness

PROBLEM 4

- Many students try to use the drag coefficient to calculate the drag instead of using the control volume method
- Some students used incorrect bound for the integral (i.e. $\int_0^{2b}$ instead of $\int_{-b}^{b}$)

PROBLEM 5

- Some students did not setup the system of equation required to solve the parallel pipe system correctly

PROBLEM 6

- Many students could not apply the given function into the simplified governing equation to solve for k constant