CS 13 Homework 1

Light Aircraft Design: Power Loading Computation

Implement a class that performs the power loading computation for a light plane. Your class should store the maximum velocity for the aircraft (Vmax). The units for the maximum velocity are knots.

Implement a function for each of the following formulas:

Fixed-Gear Normal Design: $\quad W\!/\!hp = 215 V_{max}^{-.61}$

Retract-Gear Normal Design: $\quad W\!/\!hp = 276 V_{max}^{-.65}$

Fixed-Gear Smooth Design: $\quad W\!/\!hp = 248 V_{max}^{-.61}$

Retract-Gear Smooth Design: $\quad W\!/\!hp = 680 V_{max}^{-.79}$

Acrobatic: $\quad W\!/\!hp = 172 V_{max}^{-.61}$

RagWings: $\quad W\!/\!hp = 511 V_{max}^{-.75}$

Ultralights: $\quad W\!/\!hp = 325 V_{max}^{-.75}$

Please submit your .java file for grading.