## **Theory**



# **Scaling laws (8 points)**

#### Part A. Spaghetto (2.0 points)

**A.1** (2.0 pt) l' =

## Part B. Sand castle (2.0 points)

**B.1** (2.0 pt)  $F_{f} =$ 

### Part C. Interstellar travel (2.0 points)

**C.1** (2.0 pt) d'/d =

#### Part D. That sinking feeling (2.0 points)

 $\begin{array}{c} \textbf{D.1} \ (2.0 \ \mathrm{pt}) \\ \\ r_{\mathsf{min}}/r_0 = \end{array}$