

CS 333202: Probability and Statistics
HW11 Part I

1. $\frac{25}{36}$
2. $\frac{3}{4}$
3. Let G and g be the probability distribution and probability density functions of $\max(X, Y)/\min(X, Y)$.

$$G(t) = \begin{cases} 0 & t < 1 \\ \frac{t-1}{t} & t \geq 1 \end{cases}$$
$$g(t) = \begin{cases} \frac{1}{t^2} & t \geq 1 \\ 0 & \text{elsewhere} \end{cases}$$