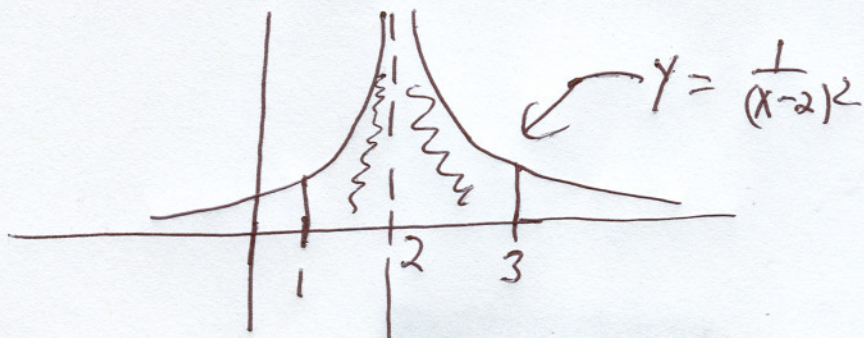


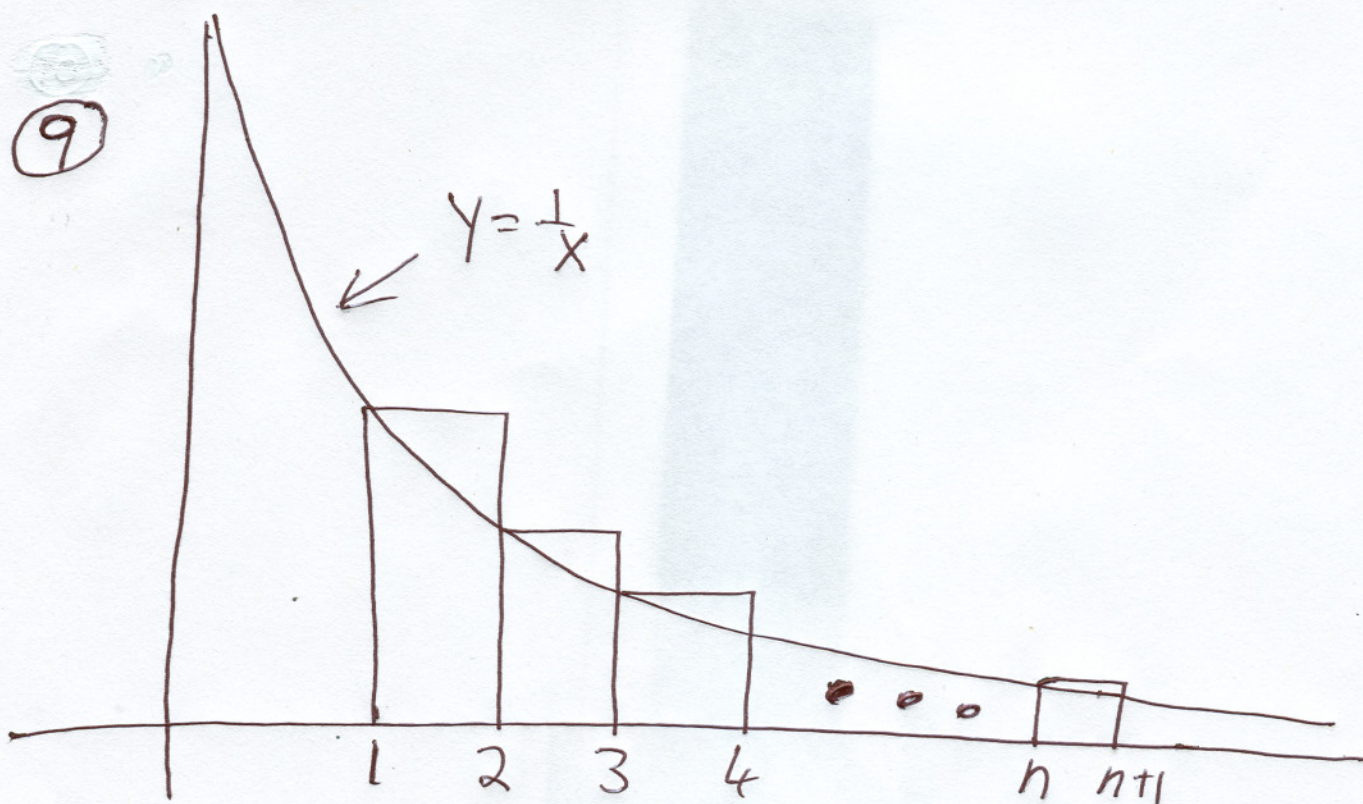
Pictures Exam 3 Fall 2004 Math 142

8



We are to find the shaded area. The answer will be a positive number or  $+\infty$

9



The area in the boxes  $\geq$  area under the curve

$$\sum_{k=1}^n \frac{1}{k} \geq \int_1^{n+1} \frac{1}{x} dx$$