

# QUIZ 2

Time: 15min

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1. If  $f(x) = \sqrt{1+x}$ , find a formula for  $f^{-1}(x)$ .

2. By appealing to the graph of  $y = \frac{1}{x}$ , show that

$$\frac{1}{2} + \frac{1}{3} + \cdots + \frac{1}{n} < \ln n < 1 + \frac{1}{2} + \frac{1}{3} + \cdots + \frac{1}{n-1}.$$

*Each problem is worth 5 points.*