

Quiz 5 - Math 374, Frank Thorne (thorne@math.sc.edu)

Friday, September 29, 2017

(1) A function $T(n)$ is defined on integer powers of 2 by the following recurrence:

- $T(1) = 3$, and
- $T(n) = T(n/2) + n$ when $n \geq 2$ and $n = 2^m$ for some integer m .

Obtain a closed-form formula for this recurrence. Prove your claim.