

1.3.2. A system has an n -layer protocol hierarchy, with M -byte messages and h -byte headers added by each layer. What fraction of the bandwidth is filled with headers?

~~Fraction~~ ~~acc~~

$$H: \text{total header space per packet} = n \cdot h$$

$$T: \text{total packet size} = M + H = M + nh$$

$$x_H: \text{fraction occupied by header} = \frac{H}{T} = \frac{nh}{M+nh} = \frac{1}{\frac{M}{nh} + 1}$$