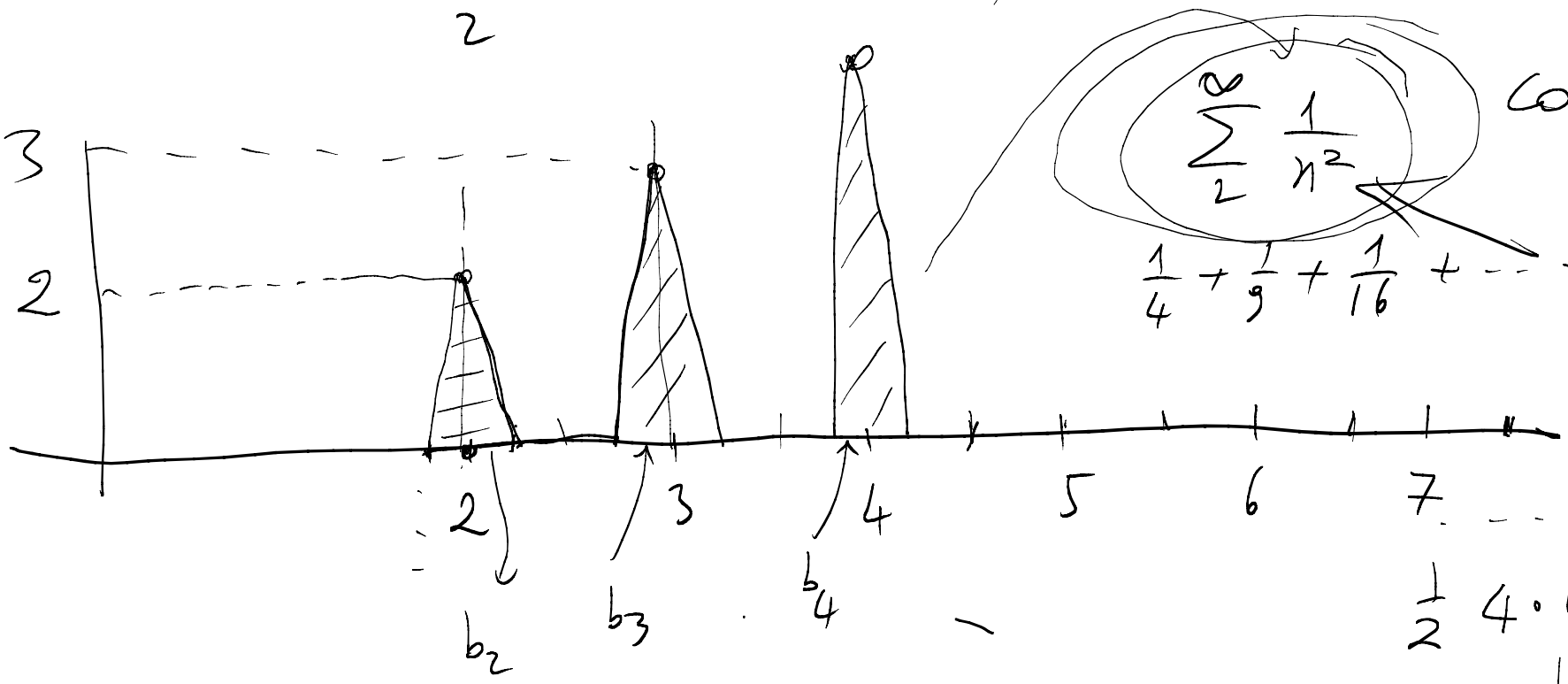
Note Title 12/14/2021

$\exists\, f \geq 0$: $\int_2^{+\infty} f$ esiste finito, ma $f(x) \xrightarrow[x \to +\infty]{} 0$ è falso!



$\sum_2^{\infty} \frac{1}{n^2}$ CONVERG.

$\frac{1}{4} + \frac{1}{9} + \frac{1}{16} + \dots$

$\frac{1}{2}\,4 \cdot b_4 = \frac{1}{16}$

$b_4 = \frac{1}{8}$

$\frac{1}{2}(2 \cdot b_2) = \text{area 1° triangolo} = \frac{1}{4} = \frac{1}{n^2}\ n=2$

altezza base

$\frac{1}{2}(b_3 \cdot 3) = \frac{1}{9} = \frac{1}{n^2}\Big|_{n=3}$

$\frac{1}{2}\left(n \cdot \frac{2}{n^3}\right) = \frac{1}{n^2}$

altezza ↑ ↑ base

$f \geq 0$ $\quad c \to \int_a^c f(t) = F(c)$ $\qquad \int_a^{+\infty} f = \lim_{c \to +\infty} \int_a^c f(t)\,dt$ $\quad c \uparrow [a, c]$

$F(c)$ è crescente e quindi converge se è limitata superiormente