

BIG DATA HW 1

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90% parallel
 $p = 0.9$

$$T(\text{S latency}) = \frac{1}{1-p+p/s}$$

for dual core:

$$T(s) = \frac{1}{1-0.9+\frac{0.9}{2}} = 1.81$$

for quad-core:

$$T(s) = \frac{1}{1-0.9+\frac{0.9}{4}} = 3.07$$