

Computationally very hard to find prime factorization

Next HW: 2.18 - 2.20

^{2.18}
Hint: Write each number as $2^k \cdot l$ where l is odd

(I.16)

Ex: $n=5$, pick $\overset{6}{\underset{n+1}{}}$ numbers between 1 and $\overset{10}{\underset{2n}{}}$

$\begin{matrix} 2^0 \cdot 3 & 2^2 \cdot 1 & 2^0 \cdot 5 & 2^1 \cdot 3 & 2^0 \cdot 7 & 2^3 \cdot 1 \\ \text{"} & \text{"} & \text{"} & \text{"} & \text{"} & \text{"} \\ 3 & 4 & 5 & 6 & 7 & 8 \end{matrix} \rightarrow \underline{3|6} \text{ and } \underline{4|8}$

$2, 3, 4, 5, 7, 9 \rightarrow 2|4, 3|9$

$4, 5, 6, 7, 8, 9 \rightarrow 4|8$