

Basic Divide & Conquer Multiplication

Apply the basic divide & conquer multiplication algorithm. Fill in each blank with the appropriate value.

$$\begin{array}{r} a_L \ a_R \\ 1203 \end{array} * \begin{array}{r} b_L \ b_R \\ 4536 \end{array}$$

$$C_2 = (\text{ } * \text{ }) \text{ firsts}$$

$$C_{1A} = (\text{ } * \text{ }) \text{ outers}$$

$$C_{1B} = (\text{ } * \text{ }) \text{ inners}$$

$$n = \text{ }$$

$$C_0 = (\text{ } * \text{ }) \text{ lasts}$$

$$\text{return } \text{ } + \text{ } + \text{ } + \text{ } = \text{ }$$

$$c_2(10^n) + c_{1A}(10^{n/2}) + c_{1B}(10^{n/2}) + c_0$$

$$\begin{array}{r} a_L \ a_R \\ \text{ } \end{array} * \begin{array}{r} b_L \ b_R \\ \text{ } \end{array}$$

$$C_2 = (\text{ } * \text{ }) \text{ firsts} \quad n = \text{ }$$

$$C_{1A} = (\text{ } * \text{ }) \text{ outers}$$

$$C_{1B} = (\text{ } * \text{ }) \text{ inners}$$

$$C_0 = (\text{ } * \text{ }) \text{ lasts}$$

$$\text{return } \text{ } + \text{ } + \text{ } + \text{ } = \text{ }$$

$$c_2(10^n) + c_{1A}(10^{n/2}) + c_{1B}(10^{n/2}) + c_0$$

$$\begin{array}{cc} a_L & a_R \\ \hline & * \\ \hline & \end{array}$$

$C_2 = (\quad * \quad) \text{ firsts}$
 $C_{1A} = (\quad * \quad) \text{ outers}$
 $C_{1B} = (\quad * \quad) \text{ inners}$
 $C_0 = (\quad * \quad) \text{ lasts}$

$n = \underline{\hspace{2cm}}$

return $\underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

$$C_2(10^n) + C_{1A}(10^{n/2}) + C_{1B}(10^{n/2}) + C_0$$

$$\begin{array}{cc} a_L & a_R \\ \hline & * \\ \hline & \end{array}$$

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$$C_2(10^n) + C_{1A}(10^{n/2}) + C_{1B}(10^{n/2}) + C_0$$

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return $\underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

$$C_2(10^n) + C_{1A}(10^{n/2}) + C_{1B}(10^{n/2}) + C_0$$