

CIEBasedABC-color space

transformation $ABC^* \rightarrow XYZ$

CIELAB part 1: $ABC^* \rightarrow LMN^*$

$$A = \text{Decode}A^* = \{16 \text{ add } 116 \text{ div}\}$$

$$B = \text{Decode}B^* = \{500 \text{ div}\}$$

$$C = \text{Decode}C^* = \{200 \text{ div}\}$$

$$\begin{pmatrix} L^* \\ M^* \\ N^* \end{pmatrix} = \begin{pmatrix} 1 & 1 & 0 \\ 1 & 0 & 0 \\ 1 & 0 & -1 \end{pmatrix} \times \begin{pmatrix} A \\ B \\ C \end{pmatrix}$$