

CSC790-HW1

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Question 1

(a)

There should be $n \times p$ columns fibers, $m \times p$ row fibers, and $m \times n$ tube fibers for \mathcal{X} .

(b)

There should be m horizontal slices, n lateral slices, and p frontal slices for \mathcal{X} .

(c)

There are total $n_1 \times \cdots \times n_{k-1} \times n_{k+1} \times \cdots \times n_d$ mode- k fiber for \mathcal{Y} . It's dimension is $n_k \times 1$.

(d)

\mathcal{Y} should have $n_3 \times \cdots \times n_d$ frontal slices.

Question 2

(a)