

$$\mathbb{1} \times \mathbb{1} \times \mathbb{1} \xleftarrow{\text{bimod}} \mathbb{1}$$

$$\mathbb{1} \nabla_{\mathbb{1}} = \left\{ \mathbb{1} \xleftarrow{\mathbb{L}} \overset{m}{\mathbb{X}} \mathbb{1} \text{ m-lin} \right\} = \left\{ \mathbb{1} \xleftarrow{\text{lin}} \overset{m}{\mathbb{X}} \mathbb{1} \right\}$$

$$\mathbb{1} \nabla_{\mathbb{1}} \stackrel{\text{McL}}{283} \frac{\mathbb{1} \xleftarrow{\mathbb{L}} \mathbb{1}^m \text{ m-lin}}{\mathbb{L} \underbrace{\mathbb{1}^1 \dots e \dots \mathbb{1}^m}} = 0$$

$$\mathbb{1} \nabla_{\mathbb{1}} = \sum_m \mathbb{1} \nabla_{\mathbb{1}}$$

$$\mathbb{1} \nabla_{\mathbb{1}} \xleftarrow{d} \mathbb{1} \nabla_{\mathbb{1}}$$

$$\mathbb{L} d \underbrace{\mathbb{1}^0 \overset{\cdot}{\mathbb{X}} \mathbb{1}^m} = \mathbb{1}^0 \times \underbrace{\mathbb{L} \mathbb{1}^1 \overset{\cdot}{\mathbb{X}} \mathbb{1}^m} - \underbrace{-1}_{m} \underbrace{\mathbb{L} \mathbb{1}^0 \overset{\cdot}{\mathbb{X}} \mathbb{1}^{m-1}} \times \mathbb{1}^m - \sum_j^m -1 \underbrace{\mathbb{L} \mathbb{1}^0 \overset{\cdot}{\mathbb{X}} \mathbb{1}^{j-1}} \underbrace{\mathbb{X} \mathbb{1}^j \times \mathbb{1}^{j+1}} \underbrace{\mathbb{X} \mathbb{1}^{j+2} \overset{\cdot}{\mathbb{X}} \mathbb{1}^m}$$

$$= \mathbb{1}^0 \times \underbrace{\mathbb{L} \mathbb{1}^1 \overset{\cdot}{\mathbb{X}} \mathbb{1}^m} + \underbrace{-1}_{m+1} \underbrace{\mathbb{L} \mathbb{1}^0 \overset{\cdot}{\mathbb{X}} \mathbb{1}^{m-1}} \times \mathbb{1}^m + \sum_{1 \leq i \leq m} -1 \underbrace{\mathbb{L} \mathbb{1}^0 \overset{\cdot}{\mathbb{X}} \mathbb{1}^{i-2}} \underbrace{\mathbb{X} \mathbb{1}^{i-1} \times \mathbb{1}^i} \underbrace{\mathbb{X} \mathbb{1}^{i+1} \overset{\cdot}{\mathbb{X}} \mathbb{1}^m}$$

$$\mathbb{L} d d = 0$$