

$${}_0\overline{\mathsf{E}}^{1q^n} = (-1)^n q^{n(n-1)/2} = (-1)^n q^{{n \brack 2}}$$

$$U=0 \Rightarrow \sum_V {}_0\overline{\mathsf{E}}^{1V} \widehat{|X|}^{n-\dim V} = \mathsf{L}^0(x) = \sharp \frac{\mathsf{L} \in \mathbb{K}^n}{\ker \mathsf{L} = 0} = \sharp^{q^n} \blacktriangle X = \prod_i^n (x - q^i)$$

$$x=0 \Rightarrow {}_0\overline{\mathsf{E}}^{1q^n} = \prod_i^n (-q^i) = (-1)^n q^{0+1+\dots+(n-1)} = (-1)^n q^{n(n-1)/2}$$

$${}_U\overline{\mathsf{E}}^{1V} = {}_0\overline{\mathsf{E}}^{1V \vdash U} = (-1)^{\dim V - \dim U} q^{{\dim V - \dim U \brack 2}}$$