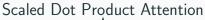
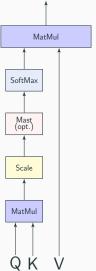
## Scaled Dot product

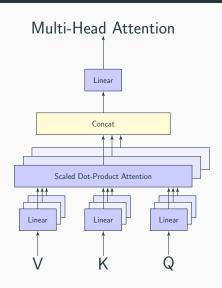






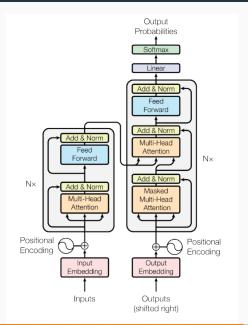
## **Multi-Head Attention**





## The Transformer - model architecture





## **Positional Encoding - Example**





$$PE_{(pos,2_i)} = sin(pos/1000^{2i/d_{model}})$$

$$PE_{(pos,2_{i+1})} = cos(pos/1000^{2i/d_{model}})$$