| Input               | [CLS]              | my              | dog              | is              | cute              | [SEP]              | he              | likes              | play              | ##ing              | [SEP]              |
|---------------------|--------------------|-----------------|------------------|-----------------|-------------------|--------------------|-----------------|--------------------|-------------------|--------------------|--------------------|
| Token<br>embeddings | E <sub>[CLS]</sub> | E <sub>my</sub> | E <sub>dog</sub> | E <sub>is</sub> | E <sub>cute</sub> | E <sub>[SEP]</sub> | E <sub>he</sub> | E <sub>likes</sub> | E <sub>play</sub> | E <sub>##ing</sub> | E <sub>[SEP]</sub> |
|                     | +                  | +               | +                | +               | +                 | +                  | +               | +                  | +                 | +                  | +                  |
| Segment embeddings  | E <sub>A</sub>     | E <sub>A</sub>  | E <sub>A</sub>   | E <sub>A</sub>  | E <sub>A</sub>    | E <sub>A</sub>     | E <sub>B</sub>  | E <sub>B</sub>     | E <sub>B</sub>    | E <sub>B</sub>     | E <sub>B</sub>     |
|                     | +                  | +               | +                | +               | +                 | +                  | +               | +                  | +                 | +                  | +                  |
| Position embeddings | E <sub>0</sub>     | E <sub>1</sub>  | E <sub>2</sub>   | E <sub>3</sub>  | E <sub>4</sub>    | E <sub>5</sub>     | E <sub>6</sub>  | E <sub>7</sub>     | E <sub>8</sub>    | E <sub>9</sub>     | E <sub>10</sub>    |