tf.keras.backend.dot

```
dot(
    x,
    y
)
```

Defined in `tensorflow/python/keras/_impl/keras/backend.py`.

Multiplies 2 tensors (and/or variables) and returns a *tensor*.

When attempting to multiply a nD tensor with a nD tensor, it reproduces the Theano behavior. (e.g. `(2, 3) * (4, 3, 5) -> (2, 4, 5)`)

Arguments:

- `x`: Tensor or variable.
- `y`: Tensor or variable.

Returns:

```
A tensor, dot product of `x` and `y`.
```

Examples:

```
    # dot product between tensors
    >>> x = K.placeholder(shape=(2, 3))
    >>> y = K.placeholder(shape=(3, 4))
    >>> xy = K.dot(x, y)
    >>> xy
    <tf.Tensor 'MatMul_9:0' shape=(2, 4) dtype=float32>
```

```
    # dot product between tensors
    >>> x = K.placeholder(shape=(32, 28, 3))
    >>> y = K.placeholder(shape=(3, 4))
    >>> xy = K.dot(x, y)
    >>> xy
    <tf.Tensor 'MatMul_9:0' shape=(32, 28, 4) dtype=float32>
```

```
    # Theano-like behavior example
    >>> x = K.random_uniform_variable(shape=(2, 3), low=0, high=1)
    >>> y = K.ones((4, 3, 5))
    >>> xy = K.dot(x, y)
    >>> K.int_shape(xy)
    (2, 4, 5)
```

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