# tf.conj

```
conj(
    x,
    name=None
)
```

Defined in `tensorflow/python/ops/math_ops.py`.

See the guide: Math > Complex Number Functions

Returns the complex conjugate of a complex number.

Given a tensor `input` of complex numbers, this operation returns a tensor of complex numbers that are the complex conjugate of each element in `input`. The complex numbers in `input` must be of the form *a* + *bj*, where *a* is the real part and *b* is the imaginary part.

The complex conjugate returned by this operation is of the form *a* – *bj*.

For example:

```
# tensor 'input' is [-2.25 + 4.75j, 3.25 + 5.75j]
tf.conj(input) ==> [-2.25 - 4.75j, 3.25 - 5.75j]
```

If `x` is real, it is returned unchanged.

## Args:

- `x`: `Tensor` to conjugate. Must have numeric or variant type.
- `name`: A name for the operation (optional).

## Returns:

A `Tensor` that is the conjugate of `x` (with the same type).

## Raises:

- `TypeError`: If `x` is not a numeric tensor.

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