

## tf.assign\_sub

```
assign_sub(  
    ref,  
    value,  
    use_locking=None,  
    name=None  
)
```

Defined in [tensorflow/python/ops/state\\_ops.py](#).

See the guide: [Variables > Variable helper functions](#)

Update 'ref' by subtracting 'value' from it.

This operation outputs "ref" after the update is done. This makes it easier to chain operations that need to use the reset value.

## Args:

- **ref**: A mutable **Tensor**. Must be one of the following types: **float32**, **float64**, **int64**, **int32**, **uint8**, **uint16**, **int16**, **int8**, **complex64**, **complex128**, **qint8**, **quint8**, **qint32**, **half**. Should be from a **Variable** node.
- **value**: A **Tensor**. Must have the same type as **ref**. The value to be subtracted to the variable.
- **use\_locking**: An optional **bool**. Defaults to **False**. If True, the subtraction will be protected by a lock; otherwise the behavior is undefined, but may exhibit less contention.
- **name**: A name for the operation (optional).

## Returns:

Same as "ref". Returned as a convenience for operations that want to use the new value after the variable has been updated.

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