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### ***Rocky Enterprise Linux 9.2 Manual Pages on command 'BN\_ucmp.3ossl'***

***\$ man BN\_ucmp.3ossl***

BN\_CMP(3ossl)                    OpenSSL                    BN\_CMP(3ossl)

#### NAME

BN\_cmp, BN\_ucmp, BN\_is\_zero, BN\_is\_one, BN\_is\_word, BN\_abs\_is\_word,

BN\_is\_odd - BIGNUM comparison and test functions

#### SYNOPSIS

```
#include <openssl/bn.h>
```

```
int BN_cmp(const BIGNUM *a, const BIGNUM *b);
```

```
int BN_ucmp(const BIGNUM *a, const BIGNUM *b);
```

```
int BN_is_zero(const BIGNUM *a);
```

```
int BN_is_one(const BIGNUM *a);
```

```
int BN_is_word(const BIGNUM *a, const BN_ULONG w);
```

```
int BN_abs_is_word(const BIGNUM *a, const BN_ULONG w);
```

```
int BN_is_odd(const BIGNUM *a);
```

## DESCRIPTION

`BN_cmp()` compares the numbers `a` and `b`. `BN_ucmp()` compares their absolute values.

`BN_is_zero()`, `BN_is_one()`, `BN_is_word()` and `BN_abs_is_word()` test if `a` equals 0, 1, `w`, or `|w|` respectively. `BN_is_odd()` tests if `a` is odd.

## RETURN VALUES

`BN_cmp()` returns -1 if `a < b`, 0 if `a == b` and 1 if `a > b`. `BN_ucmp()` is the same using the absolute values of `a` and `b`.

`BN_is_zero()`, `BN_is_one()`, `BN_is_word()`, `BN_abs_is_word()` and `BN_is_odd()` return 1 if the condition is true, 0 otherwise.

## HISTORY

Prior to OpenSSL 1.1.0, `BN_is_zero()`, `BN_is_one()`, `BN_is_word()`, `BN_abs_is_word()` and `BN_is_odd()` were macros.

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