NAME

BN_cmp, BN_ucmp, BN_is_zero, BN_is_one, BN_is_word, BN_is_odd - BIGNUM comparison and test functions

SYNOPSIS

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

int BN_cmp(BIGNUM *a, BIGNUM *b);
int BN_ucmp(BIGNUM *a, BIGNUM *b);

int BN_is_zero(BIGNUM *a);
int BN_is_one(BIGNUM *a);
int BN_is_word(BIGNUM *a, BN_ULONG w);
int BN_is_odd(BIGNUM *a);
```

DESCRIPTION

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

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

BN_is_zero(), *BN_is_one()*, *BN_is_word()* and *BN_is_odd()* are macros.

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()* and *BN_is_odd()* return 1 if the condition is true, 0 otherwise.

SEE ALSO

bn(3)

HISTORY

BN_cmp(), *BN_ucmp()*, *BN_is_zero()*, *BN_is_one()* and *BN_is_word()* are available in all versions of SSLeay and OpenSSL. *BN_is_odd()* was added in SSLeay 0.8.