

**NAME**

`sem_post` – unlock a semaphore

**SYNOPSIS**

```
#include <semaphore.h>
```

```
int sem_post(sem_t *sem);
```

Link with `-pthread`.

**DESCRIPTION**

`sem_post()` increments (unlocks) the semaphore pointed to by `sem`. If the semaphore's value consequently becomes greater than zero, then another process or thread blocked in a `sem_wait(3)` call will be woken up and proceed to lock the semaphore.

**RETURN VALUE**

`sem_post()` returns 0 on success; on error, the value of the semaphore is left unchanged, `-1` is returned, and `errno` is set to indicate the error.

**ERRORS****EINVAL**

`sem` is not a valid semaphore.

**E\_OVERFLOW**

The maximum allowable value for a semaphore would be exceeded.

**ATTRIBUTES**

For an explanation of the terms used in this section, see [attributes\(7\)](#).

Interface	Attribute	Value
<code>sem_post()</code>	Thread safety	MT-Safe

**CONFORMING TO**

POSIX.1-2001.

**NOTES**

`sem_post()` is async-signal-safe: it may be safely called within a signal handler.

**EXAMPLE**

See [sem\\_wait\(3\)](#).

**SEE ALSO**

[sem\\_getvalue\(3\)](#), [sem\\_wait\(3\)](#), [sem\\_overview\(7\)](#), [signal-safety\(7\)](#)

**COLOPHON**

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