

# TensorExpr C++ Tests

## How to add a new test

First, create a new test file. Test files should have be placed in this directory, with a name that starts with `test_`, like `test_foo.cpp`.

Here is an example test file you can copy-paste.

```
#include <test/cpp/tensorexpr/test_base.h>

// Tests go in torch::jit
namespace torch {
namespace jit {

// 1. Test cases are void() functions.
// 2. They start with the prefix `test`
void testCaseOne() {
    // ...
}

void testCaseTwo() {
    // ...
}
}
}
```

Then, register your test in `tests.h`:

```
// Add to TH_FORALL_TESTS_CUDA instead for CUDA-requiring tests
#define TH_FORALL_TESTS(_) \
    _(ADFormulas) \
    _(Attributes) \
    ... \
    _(CaseOne) // note that the `test` prefix is omitted. \
    _(CaseTwo)
```

We glob all the test files together in `CMakeLists.txt` so that you don't have to edit it every time you add a test. Unfortunately, this means that in order to get the build to pick up your new test file, you need to re-run cmake:

```
python setup.py build --cmake
```

## How do I run the tests?

The following commands assume you are in PyTorch root.

```
# (re)build the test binary
ninja build/bin/test_tensorexpr
```

```
# run
build/bin/test_tensorexpr --gtest_filter='glob_style_filter*'
```