

task 1:

```
import time
import pytest

@pytest.fixture(scope="session", autouse=True)
def track_suite_time():
    start = time.time()
    print("\n[SUITE] Test suite started...")
    yield
    end = time.time()
    duration = end - start
    print(f"[SUITE] Test suite finished in {duration:.2f} seconds.")

@pytest.fixture()
def track_test_time(request):
    start = time.time()
    print(f"\n[TEST] Test '{request.node.name}' started...")
    yield
    end = time.time()
    duration = end - start
    print(f"[TEST] Test '{request.node.name}' finished in {duration:.2f} seconds.")

def add_numbers(a, b):
    return a + b

@pytest.mark.usefixtures("track_test_time")
def test_add_two_positive_numbers():
    a, b = 3, 5
    result = add_numbers(a, b)
    time.sleep(2)
    assert result == 8

@pytest.mark.usefixtures("track_test_time")
def test_add_two_negative_numbers():
    a, b = -3, -5
    result = add_numbers(a, b)
    time.sleep(3)
```

```
assert result == -8
```

```
def test_add_negative_and_positive_numbers():  
    a, b = -3, 5  
    result = add_numbers(a, b)  
    time.sleep(10)  
    assert result == 2
```

```
===== test session starts =====  
collecting ... collected 3 items  
  
task 3.py::test_add_two_positive_numbers  
[SUITE] Test suite started...  
  
[TEST] Test 'test_add_two_positive_numbers' started...  
PASSED [ 33%][TEST] Test 'test_add_two_positive_numbers' finished in 2.00 seconds.  
  
task 3.py::test_add_two_negative_numbers  
[TEST] Test 'test_add_two_negative_numbers' started...  
PASSED [ 66%][TEST] Test 'test_add_two_negative_numbers' finished in 3.00 seconds.  
  
task 3.py::test_add_negative_and_positive_numbers PASSED [100%][SUITE] Test suite finished in 15.  
  
===== 3 passed in 15.15s =====  
  
Process finished with exit code 0
```

task 2:

```
import pytest  
import yaml  
  
# Load test data from YAML file  
with open("config.yaml") as f:  
    data = yaml.safe_load(f)  
  
def add_numbers(*args):  
    return sum(args)  
  
@pytest.mark.smoke  
@pytest.mark.parametrize(  
    "a,b,c,expected",  
    [(case["input"][0], case["input"][1], case["input"][2], case["expected"])
```

```

for case in data["cases"],
    ids=[case["case_name"] for case in data["cases"]]
)
def test_add_numbers(a, b, c, expected):
    result = add_numbers(a, b, c)
    assert result == expected

@pytest.mark.critical
def test_add_invalid_types():
    with pytest.raises(TypeError):
        add_numbers(1, "two", 3)

```

```

===== test session starts =====
collecting ... collected 4 items

parametrize_task.py::test_add_numbers[positive]
parametrize_task.py::test_add_numbers[negative]
parametrize_task.py::test_add_numbers[mixed]
parametrize_task.py::test_add_invalid_types PASSED [ 25%]PASSED [ 50%]PASSED

===== 4 passed, 2 warnings in 1.40s =====

Process finished with exit code 0

```