Contents

1 Non-code things

1.1 hash.sh

Hash: 9538616d87aa2d06c37c129736430a98

```
tr -d '[:space:]' | md5sum | cut -d ' ' -f 1
```

1.2 Makefile

Hash: 6f9acb62f6e74df25f188f070cfed752

```
CXX = g++
CXXFLAGS = -Wall -Wextra -pedantic -std=c++11 -O2 -Wshadow -Wformat=2
        -Wfloat-equal -Wconversion -Wlogical-op -Wshift-overflow=2
        -Wduplicated-cond -Wcast-qual -Wcast-align
DEBUGFLAGS = -D_GLIBCXX_DEBUG -D_GLIBCXX_DEBUG_PEDANTIC
        -fsanitize=address -fsanitize=undefined
        -fno-sanitize-recover=all -fstack-protector -D_FORTIFY_SOURCE=2

DEBUG = true
ifeq ($(DEBUG),true)
        CXXFLAGS += $(DEBUGFLAGS)
endif

TARGET := $(notdir $(CURDIR))
EXECUTE := ./$(TARGET)

CASES := $(sort $(basename $(wildcard *.in)))
TESTS := $(sort $(basename $(wildcard *.out)))

all: $(TARGET)

clean:
        -rm -rf $(TARGET) *.res

%: %.cpp
        $(LINK.cpp) $< $(LOADLIBES) $(LDLIBS) -o $@

run: $(TARGET)
        time $(EXECUTE)

%.res: $(TARGET) %.in
        time $(EXECUTE) < $*.in > $*.res
ifeq ($(DEBUG),true)
        @echo "Built with DEBUG flags enabled, code may be slower
                than normal"
endif

%.out: % # Cancel the builtin rule

__test_%: %.res %.out
        diff $*.res $*.out

runs: $(patsubst %,%.res,$(CASES))

solve: runs

test: $(patsubst %,__test_%,$(TESTS))

.PHONY: all clean run test __test_% runs solve

.PRECIOUS: %.res
```