```
pgajjala:hydra5 ~/COSC530_FA22_pgajjala/dotprod_pgajjala> ./runall.sh                    <-    4:50PM
gcc -O3 -msse2 -mfpmath=sse -DSIZE=32768 -o reg ./test.c ./reg_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=32768 -o ur4 ./test.c ./ur4_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=32768 -o ae4 ./test.c ./ae4_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=32768 -o sse ./test.c ./sse_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~

==== reg ====
result is 32768.0
average dotprod time is 0.04666 milliseconds
==== ur4 ====
result is 32768.0
average dotprod time is 0.04633 milliseconds
==== ae4 ====
result is 32768.0
average dotprod time is 0.02066 milliseconds
==== sse ====
result is 32768.0
average dotprod time is 0.01733 milliseconds
```

```
gcc -O3 -msse2 -mfpmath=sse -DSIZE=65536 -o reg ./test.c ./reg_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=65536 -o ur4 ./test.c ./ur4_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=65536 -o ae4 ./test.c ./ae4_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=65536 -o sse ./test.c ./sse_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~

==== reg ====
result is 65536.0
average dotprod time is 0.09316 milliseconds
==== ur4 ====
result is 65536.0
average dotprod time is 0.09316 milliseconds
==== ae4 ====
result is 65536.0
average dotprod time is 0.04200 milliseconds
==== sse ====
result is 65536.0
average dotprod time is 0.03550 milliseconds
```

```
gcc -O3 -msse2 -mfpmath=sse -DSIZE=131072 -o reg ./test.c ./reg_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=131072 -o ur4 ./test.c ./ur4_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=131072 -o ae4 ./test.c ./ae4_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=131072 -o sse ./test.c ./sse_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
==== reg ====
result is 131072.0
average dotprod time is 0.18616 milliseconds
==== ur4 ====
result is 131072.0
average dotprod time is 0.18666 milliseconds
==== ae4 ====
result is 131072.0
average dotprod time is 0.08400 milliseconds
==== sse ====
result is 131072.0
average dotprod time is 0.07016 milliseconds
```

```
gcc -O3 -msse2 -mfpmath=sse -DSIZE=262144 -o reg ./test.c ./reg_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=262144 -o ur4 ./test.c ./ur4_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=262144 -o ae4 ./test.c ./ae4_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~
gcc -O3 -msse2 -mfpmath=sse -DSIZE=262144 -o sse ./test.c ./sse_dotprod.c
./test.c:30:1: warning: return type defaults to 'int' [-Wimplicit-int]
 main()
 ^~~~

==== reg ====
result is 262144.0
average dotprod time is 0.37300 milliseconds
==== ur4 ====
result is 262144.0
average dotprod time is 0.37350 milliseconds
==== ae4 ====
result is 262144.0
average dotprod time is 0.16800 milliseconds
==== sse ====
result is 262144.0
average dotprod time is 0.13950 milliseconds
```