

```
OPENQASM 2.0;
include "qelib1.inc";
```

```
qreg q[6];
creg c[6];
```

```
reset q[0];
reset q[1];
reset q[2];
reset q[3];
reset q[4];
reset q[5];
x q[0];
x q[3];
x q[4];
h q[0];
cp(pi/2) q[1],q[0];
cp(pi/4) q[2],q[0];
cp(pi/8) q[3],q[0];
cp(pi/16) q[4],q[0];
cp(pi/32) q[5],q[0];
h q[1];
cp(pi/2) q[2],q[1];
cp(pi/4) q[3],q[1];
cp(pi/8) q[4],q[1];
cp(pi/16) q[5],q[1];
h q[2];
cp(pi/2) q[3],q[2];
cp(pi/4) q[4],q[2];
cp(pi/8) q[5],q[2];
h q[3];
cp(pi/2) q[4],q[3];
cp(pi/4) q[5],q[3];
h q[4];
cp(pi/2) q[5],q[4];
h q[5];
swap q[0],q[5];
swap q[1],q[4];
swap q[2],q[3];
measure q[0] -> c[0];
measure q[1] -> c[1];
measure q[2] -> c[2];
measure q[3] -> c[3];
measure q[4] -> c[4];
measure q[5] -> c[5];
```