hippo(int ID) {

while (1) eat(ID);

}

referee() {

while (1) restart\_game();

}

// GLOBALS

int marbles = M;

int scores = {0, 0, 0, ... 0};

// SYNCHRONIZATION DECLARATIONS

**mutex\_t lock;**

**cond\_t cv\_game\_start;**

**cond\_t cv\_game\_over;**

void eat(int ID) {

**mutex\_lock(&lock);**

**while(marble==0){**

**cond\_wait(&cv\_game\_start, &lock);**

**}**

marbles--;

scores[ID]++;

**if(marble==0) {**

**cond\_signal(&cv\_game\_over);**

**}**

**mutex\_unlock(&lock);**

}

void restart\_game() {

**mutex\_lock(&lock);**

**while(marbles>0) {**

**cond\_wait(&cv\_game\_over, &lock);**

**}**

print\_and\_clear\_scores();

marbles = M;

**for(H hippos)**

**cond\_signal(&cv\_game\_start);**

**//OR**

**cond\_broadcast(&cv\_game\_start);**

**mutex\_unlock(&lock);**

}