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| 第四十九關  魔王關 | 綜合演練 | step()  turnRight()  turnLeft()  if  if..else  switch  for()  fire();  function  printf()  becameCar();  becameTank();  becameShip();  getKeyArray();  getDistance();  getDirection();  getKey();  getBox();  getString();  getMap(); | 關卡有2個長度分別不小於20以及不超過5的數值，並且分別以字串變數與整數變數給予，須透過getString()來獲得字串以及變數y來獲得整數，  玩家需將字串轉成一般整數型態後將2個數字相減做輸出才能解開鎖頭 | 此關卡讓玩家學會如何將字串中’0’~’9’的字元轉成整數值並對其進行運算，讓玩家能更熟悉資料型態轉換的操作以及了解大整數的概念。 | 3星：68個  2星：71個  1星：72個或72個以上 | int i,length,carry=0,j=1;  char str[SIZE];  int bit[SIZE]={0};  getString(str);  length=strlen(str);  for(i=0;i<length;i++){  bit[i]=str[length-i-1]-'0';  }  for(i=0;i<length;i++){  bit[i]-=(y%10);  bit[i]-=carry;  carry=0;  if(bit[i]<0){  bit[i]+=10;  carry=1;  };  y/=10;  }  step();  becameShip();  turnLeft();  step();  turnRight();  fire();  step();  becameCar();  step();  turnRight();  step();  becameTank();  turnLeft();  step();  becameCar();  step();  becameTank();  step();  turnLeft();  for(i=0;i<2;i++){  step();  }  turnRight();  step();  becameCar();  for(i=0;i<2;i++){  step();  }  becameTank();  turnRight();  step();  turnLeft();  step();  beameCar();  step();  turnLeft();  step();  becameShip();  for(i=0;i<2;i++){  step();  }  turnLeft();  step();  becameCar();  turnRight();  fire();  for(i=0;i<2;i++){  step();  }  turnLeft();  step();  becameTank();  step();  becameCar();  step();  becameShip();  turnLeft();  step();  becameCar();  turnRight();  fire();  for(i=0;i<3;i++){  step();  }  becameShip();  step();  becameTank();  turnLeft();  step();  turnRight();  step();  becameCar();  step();  becameTank();  turnRight();  for(i=0;i<3;i++){  step();  }  becameCar();  turnRight();  step();  turnLeft();  fire();  step();  turnRight();  for(i=0;i<2;i++){  step();  }  turnLeft();  for(i=0;i<3;i++){  step();  }  turnRight();  for(i=0;i<2;i++){  step();  }  turnRight();  step();  turnLeft();  for(i=0;i<2;i++){  step();  }  turnLeft();  fire();  step();  turnRight();  for(i=SIZE-1;i>=0;i--){  if(bit[i]!=0&&j==1){  j=0;  printf("%d",bit[i]);  }else if(bit[i]==0&&j==1){  continue;  }else if(j==0){  printf("%d",bit[i]);  }  }  for(i=0;i<2;i++){  step();  } |  |
| 第五十關  魔王關 | 綜合演練 | step()  turnRight()  turnLeft()  if  if..else  switch  for()  fire();  function  printf()  becameCar();  becameTank();  becameShip();  getKeyArray();  getDistance();  getDirection();  getKey();  getBox();  getString();  getMap(); | 關卡有1個字串，其中包含2個長度不小於20的數值，以空白字元分割，需用getString();來獲取字串，玩家需將字串轉成一般整數型態後將2個數字相加做輸出才能解開鎖頭 | 此關卡主要是要讓玩家能更熟悉字串轉整數的操作，並學會2個大整數的運算。 | 3星：97個  2星：100個  1星：101個或101個以上 | int i,length,j=1,index=1;  int carry=0;  int x[SIZE]={0};  int y[SIZE]={0};  int bit[SIZE]={0};  char str[SIZE];  getString(str);  length=strlen(str);  step();  turnRight();  step();  turnLeft();  step();  becameShip();  turnRight();  step();  turnLeft();  step();  becameCar();  step();  becameTank();  turnLeft();  fire();  step();  becameCar();  step();  turnLeft();  step();  turnRight();  for(i=0;i<2;i++){  step();  }  turnLeft();  for(i=0;i<3;i++){  step();  }  turnRight();  turnRight();  for(i=0;i<3;i++){  step();  }  turnRight();  for(i=0;i<2;i++){  step();  }  turnLeft();  step();  turnLeft();  turnLeft();  step();  turnRight();  for(i=0;i<2;i++){  step();  }  turnLeft();  for(i=0;i<3;i++){  step();  }  turnRight();  for(i=0;i<2;i++){  step();  }  turnRight();  step();  turnLeft();  for(i=0;i<2;i++){  step();  }  turnLeft();  fire();  step();  turnRight();  for(i=0;i<3;i++){  step();  }  turnRight();  for(i=0;i<4;i++){  step();  }  becameTank();  turnRight();  for(i=0;i<2;i++){  step();  }  turnLeft();  step();  turnRight();  step();  becameCar();  step();  becameShip();  turnLeft();  step();  becameCar();  turnRight();  fire();  for(i=0;i<3;i++){  step();  }  becameShip();  step();  becameTank();  turnLeft();  step();  turnRight();  step();  becameCar();  step();  becameTank();  turnLeft();  step();  becameShip();  step();  becameCar();  step();  becameShip();  turnLeft();  fire();  step();  becameCar();  step();  turnRight();  step();  becameTank();  turnLeft();  step();  becameCar();  step();  becameTank();  step();  turnLeft();  fire();  for(i=0;i<2;i++){  step();  }  turnRight();  step();  becameCar();  for(i=0;i<2;i++){  step();  }  becameTank();  turnLeft();  step();  becameCar();  step();  becameTank();  turnRight();  step();  becameCar();  step();  becameShip();  turnRight();  for(i=0;i<3;i++){  step();  }  becameCar();  turnRight();  for(i=length-1;i>=0;i--){  if(index==1){  if(str[i]!=' '){  if(str[i]>='0'&&str[i]<='9'){  x[length-1-i]=str[i]-'0';  }  }else{  index=i;  }  }else{  y[index-i-1]=str[i]-'0';  }  }  j=0;  for(i=0;i<SIZE;i++){  bit[i]=x[i]+y[i]+carry;  carry=0;  if(bit[i]>=10){  bit[i]-=10;  carry=1;  }  }  j=1;  for(i=SIZE-1;i>=0;i--){  if(bit[i]!=0&&j==1){  j=0;  printf("%d",bit[i]);  }else if(bit[i]==0&&j==1){  continue;  }else if(j==0){  printf("%d",bit[i]);  }  }  step();  turnLeft();  step(); |  |