



Automated Bug Repair



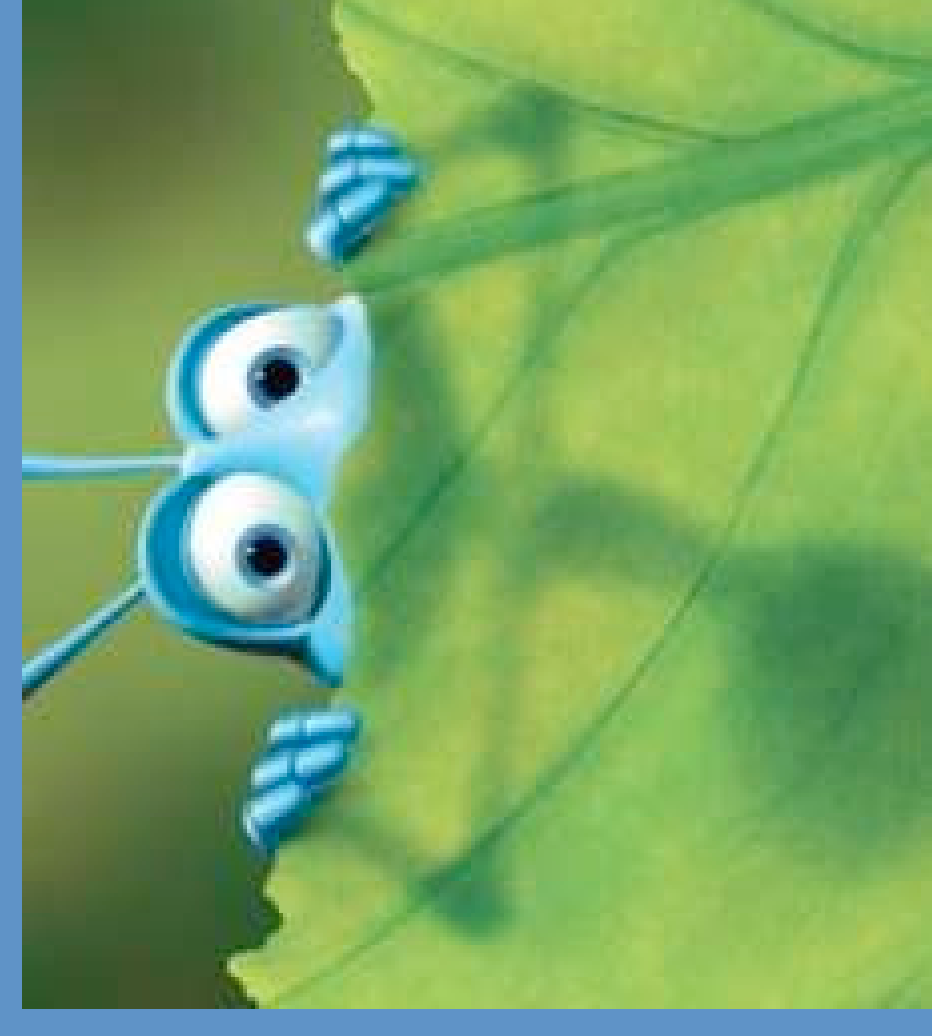
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Can you find the bug?

```

int factor (int grade, int hw) {
  assume (grade>=0 && grade<=100);
  assume (hw>=0 && hw<=100);
  int res = grade;
  res = res + 5;
  res += magen(res,hw);
  if (res > 100){
    res =100;
  }
}

```



assert (res>=0 && res<=100);

```

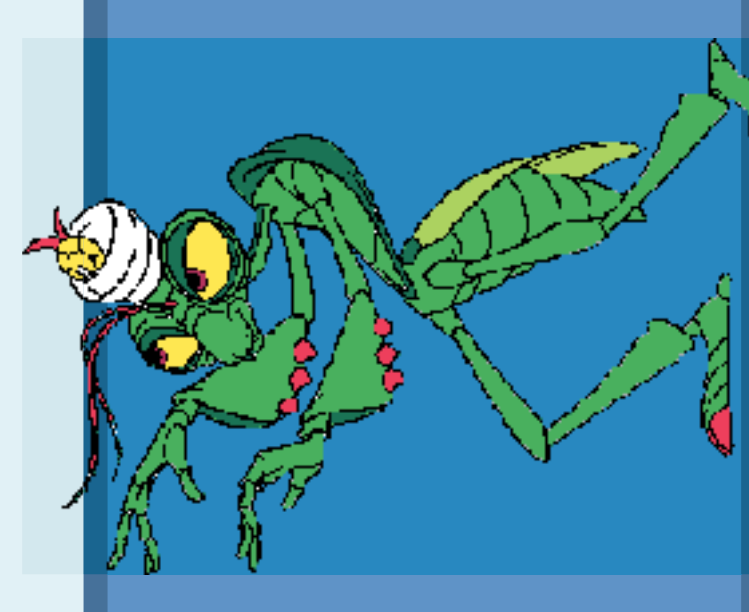
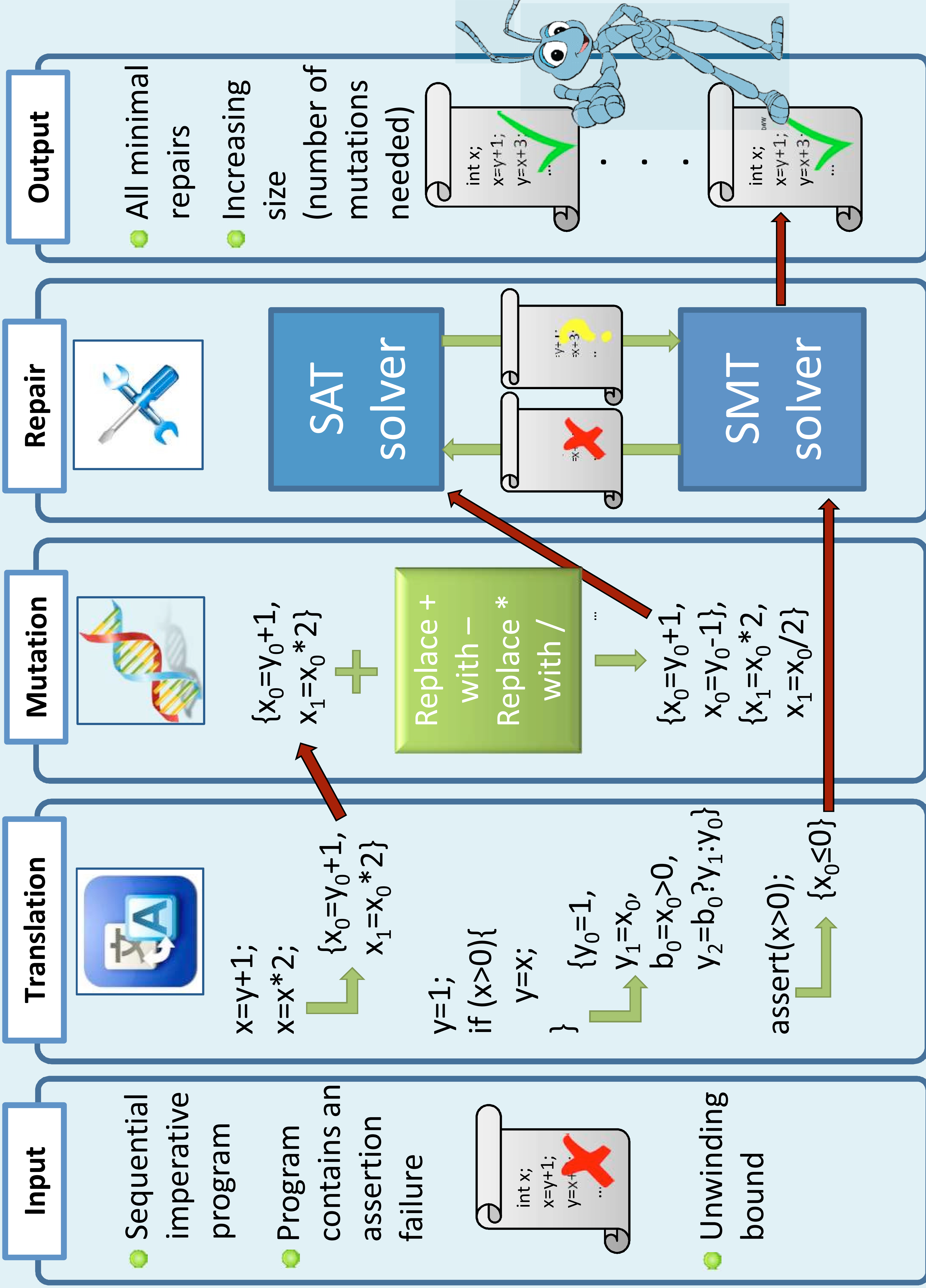
return res;
}

int magen (int x, int hw){
  int p=x;
  if (hw>x){
    p=0.3*hw+0.7*x;
  }
  p=p-x;
  return -p; }

```



Manual debugging can be really annoying!



Why not let the computer find and fix the problem for you?