Beauty and Joy of Computing Unit 2 Assessment

(1) A robot (arrow) is sitting in the middle of a 5×5 grid facing upwards. Shade all the squares in the grid that the robot <u>cannot</u> get to, if the given code is executed.

```
set X to pick random 2 to 3

repeat X

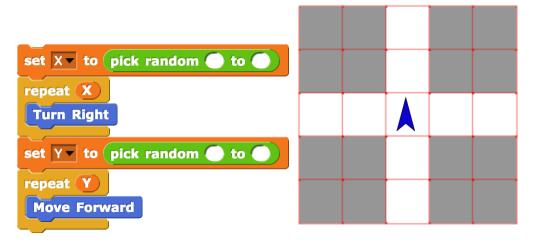
Turn Right

set Y to pick random 1 to 2

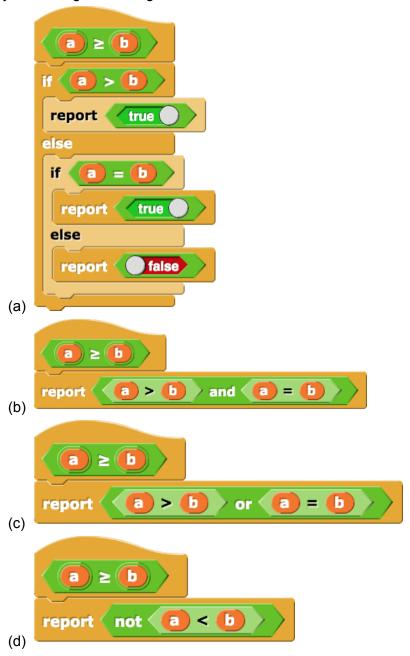
repeat Y

Move Forward
```

(2) What numbers should go into the empty input slots of this code if all the squares the robot <u>cannot</u> get to are shown in grey?



(3) Below four definitions are given for a ≥ predicate. At least one of them is wrong. Explain why each is right or wrong.



(4) Suppose you are given the following block that reports the maximum of two input numbers as shown below.



How would you use the block above to define the following block which reports the maximum of three input numbers?

