**Part a**

public void simulateOneDay(int numBirds)

{

double condition = Math.random();

if (condition < 0.05)

{

currentFood = 0;

}

else

{

int eachBirdEats = (int) (Math.random() \* 41) + 10;

int totalEaten = numBirds \* eachBirdEats;

if (totalEaten > currentFood)

{

currentFood = 0;

}

else

{

currentFood -= totalEaten;

}

}

}

**Part b**

public int simulateManyDays(int numBirds, int numDays)

{

for (int i = 0; i < numDays; i++)

{

if (currentFood == 0)

{

return i;

}

simulateOneDay(numBirds);

}

return numDays;

}

**Part b (Alternate solution with while loop)**

public int simulateManyDays(int numBirds, int numDays)

{

int daysSoFar = 0;

while (currentFood > 0 && daysSoFar < numDays)

{

simulateOneDay(numBirds);

daysSoFar++;

}

return daysSoFar;

}