To The Death

Program Name: fight.java   Input File: fight.in

You are programming the battle engine for an upcoming role-playing game (RPG). Your program is given the hit points (HP), weapon strength, and armor strength of the player and the monster that player is engaging in battle. Your battle engine is to run the battle until either the player or the monster has been slain and announce the victor of the battle.

The battles are run in a turn-based fashion, and the player always gets the first attack. The attack power of each fighter is calculated by adding that fighter's HP and weapon strength, and the defense power of each fighter is calculated by adding that fighter's HP and armor strength. Damage is determined by taking the attacker's attack strength and deducting from it the defense power of the fighter being attacked; if the damage calculated is less than or equal to zero, the damage is instead equal to 10% of the attacker's attack power (rounded up). The amount of damage is deducted from the HP of the fighter being attacked. During each round of the battle both fighters take turns attacking and defending. A fighter is slain if his HP reaches or falls below zero.

Input
The first line will contain a single integer *n* indicating the number of data sets.
The first line in each dataset will consist of 3 positive integers that correspond to the player's HP, weapon strength, and armor strength, respectively.
The last line in each dataset will consist of 3 positive integers that correspond to the monster's HP, weapon strength, and armor strength, respectively.

Output
For each dataset, print the following:
"BATTLE *X*" (where *X* is the number of the dataset)

For each attack, display the damage scored as follows:
"The player attacks the monster for *x* damage!" or "The monster attacks the player for *x* damage!"
Where *x* is the damage scored for that turn.

If the player is slain, display the string "The player has been slain!".
If the monster has been slain, display the string "The monster has been slain!".

Example Input File
```
2
50 50 35
50 40 30
35 25 40
50 30 60
```
Example Output To Screen
```
BATTLE 1
The player attacks the monster for 20 damage!
The monster attacks the player for 7 damage!
The player attacks the monster for 33 damage!
The monster has been slain!
BATTLE 2
The player attacks the monster for 6 damage!
The monster attacks the player for 8 damage!
The player attacks the monster for 6 damage!
The monster attacks the player for 1 damage!
The player attacks the monster for 6 damage!
The monster attacks the player for 7 damage!
The player attacks the monster for 5 damage!
The monster attacks the player for 6 damage!
The player attacks the monster for 4 damage!
The monster attacks the player for 6 damage!
```

```
The player attacks the monster for 4 damage!
The monster attacks the player for 2 damage!
The player attacks the monster for 3 damage!
The monster attacks the player for 1 damage!
The player attacks the monster for 3 damage!
The monster attacks the player for 5 damage!
The player has been slain!
```