COS126 Turing Machine Worksheet

- Recommended Turing Machine exercises from the exam archive:
  Fall 2008, Exam 2, question 7
- Old exam question Turing Machine (Note slightly different notation.)

a) The Turing Machine above starts in the leftmost state. If this Turing Machine is run on the tape below, with the tape head starting at the position marked by the arrow, what will be the contents of the tape when it halts, AND where will the head be?

Write your answer in the empty tape below.

```
... 0 0 0 0 0 1 0 1 1 0 1 1 X X X ...
```

b) What computation does this Turing Machine perform?