Hangman | YEAH hours

Programming steps

1. **Play a console-based game with small word set**

Where do I get the words to use for Hangman?
HangmanLexicon:
- use HangmanLexicon's stub implementation with a random generator
- create a new instance of HangmanLexicon and store it in an instance variable

Taking guesses
- accept guesses in upper or lower case
- if the user guesses something illegal, give an appropriate error message and prompt for a new character

String s = readLine("Your guess: ");

2. **Add in the graphics**

Associating the canvas with the Hangman program
In the Hangman class, declare an instance variable:
private HangmanCanvas canvas

Then, add:
```
public void init() {
        canvas = new HangmanCanvas();
        add(canvas);
}
```

Make calls on the canvas:
e.g. canvas.reset();

3. **Read in the lexicon from a data file**
- reimplement the HangmanLexicon class so that it reads in the words from the HangmanLexicon.txt file.
- put the words into an ArrayList
- implement getWordCount and getWord methods

String processing

example, word is "cat"
start: ---
guess A: -A-

Helpful string methods

check if a character is uppercase:
      char c = 'c'; (choose any character for this comparison)
      boolean isUppercase = Character.isUpperCase(c);

check if a character is lowercase:
      boolean isLowercase = Character.isLowerCase(c);

get the character at a certain index (i)
      String str = "cats";
      int i = 0;
      char characterAtIndex = str.charAt(i);

iterate through all the characters in a string and print each one
      String str = "cats";
      for (int i = 0; i < str.length(); i++) {
            char ch = str.charAt(i);
            println(ch);
      }

get the length of the string
      String str = "cats";
      int length = str.length();

compare two strings
      use .equals
      e.g.
            String str1 = "cats";
            String str2 = "dogs";

      boolean stringsAreSame = str1.equals(str2);

compare two characters
      use ==

Classes & methods to implement

HangmanLexicon
public int getWordCount()
public String getWord(int index)

what instance variables do you want to use in this class to store your data?

HangmanCanvas
public void reset()
public void displayWord(String word)
public void noteIncorrectGuess(char letter)

lots of constants here too!

Hangman
use HangmanLexicon and HangmanCanvas here to make your game!