Exercise 5: Installation of the Keyboard class

In the remaining part of the semester you will need the `Keyboard` class from the *Lewis and Loftus* book for reading numbers etc. from the keyboard. Install it. The class and installation guide can be found on the homepage for exercises.

Exercise 6: Distance between line and point.

Write a program that (1) reads the equation of a line and the coordinates of a point, and (2) computes and prints the distance between the line and the point.
The line should be given on the usual form $l : y = a \cdot x + b$, the point as $P : (x_0, y_0)$. The distance between the line and the point is given by the formula

$$\text{dist}(l, P) = \frac{|a \cdot x_0 - y_0 + b|}{\sqrt{1 + a^2}}$$

All necessary mathematical functions can be found in the `Math` class.

Exercise 7: Conversion of seconds.

Write a program that (1) reads a value representing a number of seconds, and (2) prints the equivalent amount of time in days, hours, minutes and seconds. For instance:

```
Enter an amount of seconds: 238577
238577 seconds equals 2 days, 18 hours, 16 minutes and 17 seconds.
```

Hint:

- Define two constants that represent the number of seconds per hour and the number of seconds per day and night (24 hours), respectively.
- Declare a variable `totalSeconds` of type `int` that can store the input value.
- Declare a variable for storing the calculated number days, hours, minutes and seconds.

Exercise 8: Checking passwords.

Write a program that (1) reads a password, and (2) checks that the length of the password is greater than 4 and less than 9. The result should be written on the screen.

Hint:

- Use an if statement (see chapter 3 in *Lewis and Loftus*).