

Quiz #4 Answers

1. Write a small bit of code (just what would go inside of main, not the entire class) that reads in a person's height in inches and prints it out in feet.

```
Scanner sc=new Scanner(System.in);  
System.out.println("What is your height in inches? ");  
double heightInInches=sc.nextDouble();  
System.out.println("You are "+heightInInches/12+" feet tall.");
```

2. The code you wrote above should probably have had the text "new Scanner(System.in)" in it somewhere to initialize a Scanner variable. Why was this needed? (Be as explicit as possible and think about our discussion of types.)

This is needed because sc is a variable of a reference type. It can refer to an object, but we need to make an object for it to refer to. The use of new indicates that we are building a new object and in this case it is a Scanner object that will read from System.in.

Extra Credit: How and why do you use assert in a program?

The assert directive is primarily used for testing. The syntax is "assert booleanExpression". If the expression is true the program keeps running. Otherwise the program will terminate at that line and give you a message.