Gnomes

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(1) Write a method in class Gnome that sets the buddy of a gnome to the specified gnome.

```
public void setBuddy(Gnome g)
```

(2) How does a gnome g look after the following

```
Gnome g;
```

(3) How does a gnome g look after the following

```
Gnome g;
g = new Gnome();
```

(4) What does it mean for the instance variables of a class to be
    (a) private

(b) public

(5) When designing a class, are there any guidelines on what is public and what is private?

(6) Write a piece of code that tests class Gnome: for e.g. you can create 3 gnomes called Grumpy, Goofy and Dummy; make Goofy the buddy of Grumpy, Dummy of Goofly, and Grumpy of Dummy.

(7) Write a method that prints the buddy of the buddy of a gnome.

(8) How would you modify the class in order to keep track of how many gnomes have been created?