

Exercise 2 Answers

Methods, properties and constructors

- 1.
2. For the answer to this question let's suppose the new property we are going to add is `height`, which measures the height in centimeters.

(a) The following line would be added to the "properties" section:

```
private int height;
```

(b) The constructor will be changed to this:

```
public Person(String aName, int anAge, int aHeight) {  
    name    = aName;  
    age     = anAge;  
    height  = aHeight;  
}
```

(c) The main method might be changed to this:

```
public static void main(String[] args) {  
  
    Person ls = new Person("Luke Skywalker",34,180);  
    Person wp = new Person("Winston Peters",48,173);  
  
    ls.talk();  
    wp.talk();  
}
```

(d) The `talk` method would be changed to this:

```
public void talk() {  
    System.out.println("Hi, my name's " + name);  
    System.out.println("and my age is " + age);  
    System.out.println("and my height is " + height);  
    System.out.println();  
}
```

3. The following code should be added inside the `commentAboutAge` method:

```
if (age > 60) {  
    System.out.println("old person");  
}
```

4. These two lines should be added towards the end of the `main` method:

```
ls.commentAboutAge();  
wp.commentAboutAge();
```

5. Here is how to define the method:

```
public void growOlder() {  
    age = age + 1;  
}
```

Alternatively, you can write `age++` or `++age` or `age += 1` in the place of `age = age + 1`. These statements all do the same thing.

To make Winston Peters grow older, put the following line into the `main` method: `wp.growOlder();`

6. Here is how to define the method:

```
public void giveKnighthood() {  
    name = "Sir " + name;  
}
```

To call the method, put `wp.giveKnighthood();` in the `main` method.

7. The following code in the `main` method will print Luke Skywalker's age:

```
System.out.println("Luke Skywalker's age is " + ls.age);
```

8. Simply add the following line to the end of the `talk` method: `commentAboutAge();`

9. Here is how to define the method:

```
public void growOlderBy(int years) {  
    age = age + years;  
}
```

To call this method, use the following line: `ls.growOlderBy(10);`

10. Run the program to see what is output.