- Exercise 4.15 on page 141

# 4.5 What is the purpose of the operator new? Explain what happens when this keyword is used in an app.

**New class types will be accessible to all classes in the same project. The new operator calls the class’s constructor to perform the initialization.**

# 4.6 What is a default constructor? How are an object’s instance variables initialized if a class has only a default constructor?

**A default constructor is created in any class that doesn’t define its constructor. When an object is created its value is null.**

# 4.7 Explain the purpose of an instance variable.

**Every time an object is created each object will have its own information in memory.**

# 4.8 Explain how an app could use class Console without using a *using* directive.

**System.Console.WriteLine(“This isn’t using a using directive”);**

# 4.9 Explain why a class might provide a property for an instance variable.

**So that it can be used or modified at any time during an apps execution.**

## - From the Chapter 4 Video Notes:

In the 3rd video (Sections 4.5 – 4.8), what option did the narrator deselect in order to “see the properties in action”?

**Step over properties and operators**

In the 5th video (Section 4.10) what pattern does the narrator mention may make use of a private constructor?

**The singleton design pattern.**