Formula to calculate page in PDF: *y=-0.0002739851707x2+1.882926061x-29.15512511*

**Questions numbers 1-32 on pages 676-678.**

1. B
2. C
3. D
4. B
5. A
6. A
7. C
8. B
9. A
10. B
11. A
12. D
13. A
14. C
15. A
16. C
17. C
18. D
19. A
20. C
21. False
22. True
23. False
24. False
25. True
26. False
27. True?
28. True
29. True
30. True
31. True
32. True

**Questions 1-4 on pages 679-680.**

1. The keyword to inherit from another class is `**extends**`, not `expands`
2. To access a member variable of a superclass from a subclass, you must preface it with `**super.**`. Also it’s access modifier must be `**protected**`.
3. `c` has not been defined in the Car subclass
4. The vehicle class was not declared using the `abstract` keyword, also the abstract method `getMilesPerGallon()` was not overridden in the subclass.

**Questions #'s 1-6 on pages 680-681.**

|  |
| --- |
| public class Poodle extends Dog { |

1. `Felis`’s constructor first, then `Tiger`’s constructor second

|  |
| --- |
| public abstract class B {  private int m = 0;  protected int n = 0;    public void setM(int i) {  m = i;  }  public int getM() {  return m;  }  public void setN(int i) {  n = i;  }  public int getN() {  return n;  }    // Abstract  public abstract int calc();  } |

|  |
| --- |
| public class D extends B {  private double q = 0.0;  public double r = 0.0;    public void setQ(double i) {  q = i;  }  public double getQ() {  return q;  }  public void setR(double i) {  r = i;  }  public double getR() {  return r;  }  public int calc() {  return (int)(q \* r);  }  } |

|  |
| --- |
| super(x, y, z); |

|  |
| --- |
| super.setValue(10); |

|  |
| --- |
| public int getValue() {  return value; } |

**Questions 1-15 pages 681-682.**

1. It is the same as saying something “is a” type of something else. It can be used to describe inheritance, for example: Car is a type of vehicle, Platypus is a type of animal, etc.
2. Animal is the superclass and Dog is the subclass
3. Pet is the subclass and Dog is the superclass
4. Protected class members can only\* be accessed by the class that holds it and subclasses of that class. Private class members can only\* be accessed by the class that holds it
5. 
6. The superclass.
7. Overridden methods have the same signature as the parent method whereas overloaded methods do not.
8. Reference variables within a superclass can be inherited by their subclasses.
9. At runtime.
10. An abstract method is a method that does not have a body, and must be overridden by subclasses of the class that contains it
11. An abstract class is a class that contains abstract fields, and cannot be instantiated
12. An interface may only contains abstract fields, while an abstract class may contain non abstract fields
13. Implement an interface or extend a superclass
14. An interface that only has one abstract method
15. An object that implements a functional interface