1:

Answer: Class is blueprint or template, and object is instance of classes. When we create classes, we can make as much as instance of this class. For example, if we create person class, we can make different object from this class such as student, teacher. Another example if we make food class, we can make as much as instance of it such as pizza, burger object from this class.

=====================================================================

2:

Answer : First one is primitive type, and second one is wrapper class. Primitive type is the most basic data type for java and it has 8 different primitive type in java (Boolean, byte, char, short, int, long, float, double). Each primitive type has wrapper class as well, and beauty of wrapper class is has method so what is easier to manipulate with this data type.

=====================================================================

3:

A:

/\*

this method calculate cost of meal of animal monthly, and it has timeToEatDaily and priceOfmeal parameter input. It return cost of one peet meal for month.

\*/

**public int** costForMealForMonth(**int** timeToEatDaily , **int** priceOfmeal){  
   
 **int** monhtlyCost = timeToEatDaily \* priceOfmeal \* 30;  
 **return** monhtlyCost;  
}

B:

/\*

this method give advice how many time dog should see veterinary base on their age

and it has age parameter and it return time of year has to see veterinary.

\*/

**public int** howManyTimeSeeVeterinaryYearly(**int** age) {  
 **if**( age < 1) {  
   
   
 **return** 4;   
 }  
 **else if** ( age >1 && age < 5) {  
   
 **return** 5;   
   
 }  
   
 **else** {  
   
 **return** 7 ;}}

C:

/\*

This method sign in for user and it has passworld and email parameter and it return string

\*/

**public** String signIn(**int** password, String email) {  
   
 **if**(password == 123 && email == **"nebilgokdemir1@gmail.com"**) {  
   
 **return "Welcome"**;   
 }  
 **else** {  
 **return "password or email is not correct please try again"**;   
 }  
   
}

D:

/\*

this method check file is exit and it had filePath parameter if it exit, it return true if it is not, it is return false;

\*/

**public** Boolean fileExit(String filePath) {  
 File f = **new** File(filePath);   
   
 **if**(f.exits()) {  
 **return true**;   
 }  
 **else** {  
 **return false**;   
 }  
}

E:

/\*

this method is helping to connect with database and it has url, user and password parameter. It return string.

\*/

**public** String connectDatabase(String url, String user, **int** password ) {  
 Connection databaseConnection = DriverManager.*getConnection*(url, user, password);   
   
 **if** ( databaseConnection) {  
   
 **return "you succecfull connect database"**;   
 }  
 **else** {  
   
 **return "you didnt connect database"**;  
 }}

=====================================================================

4

a:

Class MobilePhone {

Private String name;

Private int price;

Private String model;

public MobilePhone(String name, int price, String model) {

this.name = name;

this.price = price;

this.model = model;

}

}

b:

Class User {

private String name;

Private int password;

Public User(String name, int password ) {

This.name = name;

This. Password = password;

}

}

c:

Class File {

private String name;

private String filePath;

public File(String name, String filePath) {

this.name = name;

this.filePath = filePath;}}

d:

Class Database {

private String name;

private String filePath;

public Database (String name, String filePath) {

this.name = name;

this.filePath = filePath;

}}

e:

Class WebPage{

private String content;

private String user;

public WebPage(String user , String content)

{

this.user = user;

this.content = content;

}

}

=====================================================================

5:

Answer : when this program executed, there will be no print and error because t is private. If t wasn’t private it will print 40 because as soon as create object of T, constructor assigned t to 40.

=====================================================================

6:

there is no parameter constructor for Point object

====================================================================

7 :

a

node could represent = town, city

edge could represent = distance between city or flight time estimate between city

b

node could represent = friends , group

edge could represent = user to be friends other, user like other user or join group

c

node could represent = web pages

edge could represent = how web page connect each other.

d

node could represent = actors in movei

edge could represent = if those actor act in same movei or not

e

node could represent = actors , payment

edge could represent = how much would be pay base on actors

node could represent = product name , price

edge could represent = list product base on price

8

a = O(n) because one loop

b = O(n^2) because of nested loop

c = O(n) +O(n) = O(n) because of loop

d = O(n^2/4)

e = O(1) + O(1) +O(n) + O(1) = O(n)

9

a = O(N^2)

b = O(N)

c = O(N^2)