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| **APCS Exposure Java** | **Exercises 08.05-08** | **Date:** |
| **Name:** | | **Period:** |

1. What is the *job* of a *constructor*?

2. The constructor is automatically called by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ operator and increases reliability by assigning correct \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the data.

3. Can the constructor call other methods of the class?

4. What is the purpose of a *helper method*?

5. Should helper methods be declared as **public** or **private** ?

6. Can a class have multiple constructors?

7. How many parameters does a *default constructor* have?

8. What is a *class*?

9. What is an *object*?

10. *Objects* are sometimes called \_\_\_\_\_\_\_.

11. An object is created with the \_\_\_\_\_\_\_\_\_\_\_\_\_ operator.

12. The creation of a new object is called either the \_\_\_\_\_\_\_\_\_\_\_\_\_ of an object or the \_\_\_\_\_\_\_\_\_\_\_\_\_ of an object.

13. The special method that is called during the instantiation of an object is called a \_\_\_\_\_\_\_\_\_\_\_\_\_.

14. When are constructors called?

15. What is the primary purpose of a constructor?

16. Are constructors **void** methods or **return** methods?

17. Can constructors be overloaded?

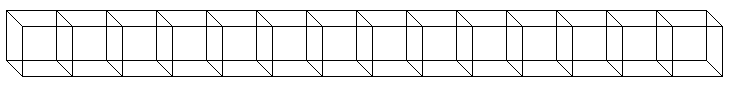
18. Look at programs ***Java0811.java*** and ***Java0812.java***. Why did the *draw* method need to be changed for the 2nd program?

Questions 19 and 20 refer to program Java0813.java and its output:

**Cube cube = new Cube(g,50,50,50);**

**for (int x = 50; x < 750; x +=** 50**)**

**cube.move(g,x,300);**



19. Refer to the bolded **50** in the **for** loop. Assume the number is changed to **100**.

Draw the new output below.

20. Refer to the previous question. Assume the number is changed to **25**. Draw the new output below.

21. Look at program ***Java0814.java***. Why does there seem to be no output in this program?

22. Look at program ***Java0815.java***. How does this cure the problem of the previous program?

23. Why would you want to have a GUI applet generate text output with **println** statements?

24. Look at program ***Java0817.java***. Why does it not compile?

25. What is the *scope* of a variable?

26. What happens if 2 variables have the same identifier and the same scope?

27. Look at programs ***Java0819.java*** and ***Java0820.java***. The first program has a logic error cause by the confusing constructor. How does the second program cure the problem?

28. Look at programs ***Java0821.java*** and refer to the previous question. This third program cures the logic error problem in a different way. Explain how.

29. Can a **void** method ever have a **return** statement? If so, under what condition and why would you want to do that in the first place?

30. How are *class* method called?

31. *Object* methods are meant to be used in what situations?

32. How are *object* methods called?

33. Private methods can only be accessed by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

34. What is the difference between a **void** method and a **return** method?

35-36. The term *default constructor* has 2 different meaning. What are they? (This counts as 2 questions)

37. What is the difference between a *get* method and a *set* method?