

## ANSWER KEY

- |             |              |              |
|-------------|--------------|--------------|
| 1. <b>D</b> | 9. <b>A</b>  | 17. <b>D</b> |
| 2. <b>B</b> | 10. <b>A</b> | 18. <b>B</b> |
| 3. <b>C</b> | 11. <b>C</b> | 19. <b>E</b> |
| 4. <b>C</b> | 12. <b>B</b> | 20. <b>D</b> |
| 5. <b>B</b> | 13. <b>E</b> | 21. <b>A</b> |
| 6. <b>C</b> | 14. <b>C</b> | 22. <b>A</b> |
| 7. <b>E</b> | 15. <b>D</b> | 23. <b>C</b> |
| 8. <b>E</b> | 16. <b>E</b> |              |

## ANSWERS EXPLAINED

- (D) There are just two constructors. Constructors are recognizable by having the same name as the class, and no return type.
- (B) Each of the private instance variables should be assigned the value of the matching parameter. Choice B is the only choice that does this. Choice D confuses the order of the assignment statements. Choice A gives the code for the *default* constructor, ignoring the parameters. Choice C would be correct if it were `resetTime(h, m, s)`. As written, it doesn't assign the parameter values `h`, `m`, and `s` to `hrs`, `mins`, and `secs`. Choice E is wrong because the keyword `new` should be used to create a new object, not to implement the constructor!
- (C) Replacement III will automatically print time `t` in the required form since a `toString` method was defined for the `Time` class. Replacement I is wrong because it doesn't refer to the parameter, `t`, of the method. Replacement II is wrong because a client program may not access private data of the class.
- (C) The parameter names can be the same—the *signatures* must be different. For example,

```
public void print(int x)      //prints x
public void print(double x)   //prints x
```

The signatures (method name plus parameter types) here are `print(int)` and `print(double)`, respectively. The parameter name `x` is irrelevant. Choice A is true: All local variables and parameters go out of scope (are erased) when the method is exited. Choice B is true: Static methods apply to the whole class. Only instance methods have an implicit `this` parameter. Choice D is true even for object parameters: Their references are passed by value. Note that choice E is true because it's possible to have two different constructors with different signatures but the same number of parameters (e.g., one for an `int` argument and one for a `double`).

- (B) Constructing an object requires the keyword `new` and a constructor of the `Date` class. Eliminate choices D and E since they omit `new`. The class name `Date` should appear on the right-hand side of the assignment statement, immediately following the keyword `new`. This eliminates choices A and C.