

Practice with the new-expression
David Gries and Scott Wehrwein

Consider class Time given below.

1. Evaluate this new-expression —the answer is given on the next page:

new Time(3, 20)

2. Draw a variable t, as shown to the right. Then, execute this assignment statement —the answer is given on the next page:

t = **new** Time(67);

t Time

```
/** An instance maintains the time of day.*/
public class Time {
    private int hr; // hour of the day, in 0..23
    private int min; // minute of the hours, in 0..59

    /** Constructor: instance with hour h, minute m.
     * Precondition: h in 0..23, m in 0..59*/
    public Time(int h, int m) {
        hr= h;
        min= m;
    }

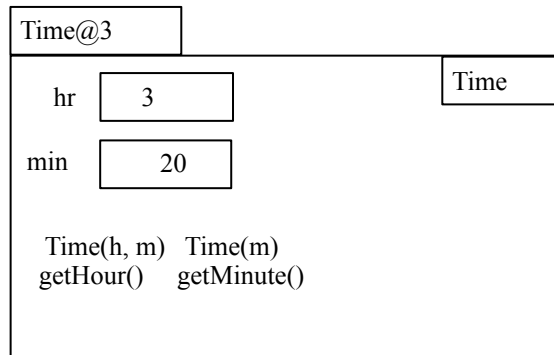
    /** Constructor: instance with minute m.
     * Precondition: 0 <= m < 24 * 60 */
    public Time(int m) {
        hr= m / 60;
        min= m % 60;
    }

    /** Return the hour of the day */
    public int getHour() {
        return hr;
    }

    /** Return the minute of the hour */
    public int getMinute() {
        return min;
    }
}
```

Practice with the new-expression
David Gries and Scott Wehrwein

Answer to exercise 1. Suppose evaluation of `Time(3, 20)` creates the object shown below. The result of evaluating the expression is the name-of or pointer-to the object: `Time@3`.



Answer to exercise 2.

