

10. 试分别用最紧凑的一条C 代码描述完成下列要求的计算:

- (1) $k = (i++) + j ; k = j + i++;$
- (2) $x = 2 * x; \quad x = x + x; \quad x += x;$
- (3) $j = --i;$
- (4) $r = (\text{int}) j \% (\text{int}) i;$
- (5) $y = (\text{int}) ((x + 0.0005) * 1000) / 1000.;$
或 $y = (\text{int}) (x * 1000 + 0.5) / 1000.;$
 $y = x >= 0? (\text{int}) (x * 1000 + 0.5) / 1000.0 : (\text{int}) (x * 1000 - 0.5) / 1000.0;$
 $y = x >= 0? (\text{int}) (\text{fabs}(x) * 1000 + 0.5) / 1000.0 : -(\text{int}) (\text{fabs}(x) * 1000 + 0.5) / 1000.0;$

11. 试用C语言表达式描述以下数学计算式或逻辑条件:

- (1) $V = (4/3) * 3.14159 * r * r * r;$
- (2) $R = 1 / (1/R1 + 1/R2);$
- (3) $y = x * x * x * (x * x + 1) + 6 \quad \text{或} \quad y = \text{pow}(x, 5) + \text{pow}(x, 3) + 6$
- (4) $F = (\text{float}) G * M1 * M2 / (R * R)$
- (5) $\sin(x * 3.14 / 180.0) / x + \text{fabs}(\cos(3.14 * 30 / 2) * 3.14 / 180.0);$
//将角度转换为弧度，将角度乘以pi/180。
- (6) $a > 0 \&& a < 10$
- (7) $x == 1 \&& y != 2 \quad || \quad x != 1 \&& y == 2$
 $((x == 1) != (y == 2))$

12. 设在求一下表达式之前，整型变量a的值为4，试指出在求了一下表达式之后，变量a、b和c的值。

- (1) $b = a * a ++;$
step1: $b = 4 * 4 = 16$
step2: $a = 4 + 1 = 5$
- (2) $c = ++a + a;$
step1: $a = 4 + 1 = 5$
step2: $c = 5 + 5 = 10$