

学号: _____1651574_____ 班级: _____计算机1班_____ 姓名: _____贾昊霖_____

(1) 给出下列程序段中变量 b 的值 (仿照 PDF 的 P. 20-26 给出分析)

A. short a=32000;
 short b=a+2000;
 a = 01111101 00000000 = 32000
 b = 10000100 11010000 = 32000 - 2 * 32768 = -31536

B. unsigned short a=50000;
 short b=a;
 a = 11000011 01010000 = 50000
 b = 11000011 01010000 = 50000 - 2 * 32768 = -15536

C. short a=-1025;
 int b=a;
 a = 填充符号位 11111011 11111111 = -1025
 b = 11111111 11111111 11111011 11111111 = -1025

D. unsigned short a=50000;
 int b=a;
 a = 填充 0 11000011 01010000 = 50000
 b = 00000000 00000000 11000011 01010000 = 50000

E. int a=80000;
 short b=a;
 a = 00000000 00000001 00111000 10000000 = 80000
 b = 00111000 10000000 = 80000 - 65536 = 14464

F. long a=-100;
 unsigned short b=a;
 a = 11111111 11111111 11111111 10011100 = -100
 b = 11111111 10011100 = -100 + 65536 = 65436

(2) P. 40 习题 5 (每小题均要求按计算顺序给出每步的步骤)

①

$$\begin{aligned} & 3.5 * 3 + 2 * 7 - 'a' \\ = & 10.5 + 2 * 7 - 'a' \\ = & 10.5 + 14 - 'a' \\ = & 24.5 - 'a' \\ = & -72.5 \end{aligned}$$

②

$$\begin{aligned} & 26 / 3 + 34 \% 3 + 2.5 \\ = & 8 + 34 \% 3 + 2.5 \\ = & 8 + 1 + 2.5 \\ = & 9 + 2.5 \\ = & 11.5 \end{aligned}$$

③

$$\begin{aligned} & 45 / 2 + (\text{int})3.14159 / 2 \\ = & 22 + (\text{int})3.14159 / 2 \\ = & 22 + 3 / 2 \\ = & 22 + 1 \\ = & 23 \end{aligned}$$

④

$$\begin{aligned} & a = b = (c = a += 6) \\ = & a = b = (c = 9) \\ = & a = b = 9 \\ = & a = 9 \\ = & 9 \end{aligned}$$

⑤

$$\begin{aligned} & a = 3 * 5, a = b = 3 * 2 \\ = & a = 15, a = b = 3 * 2 \end{aligned}$$

= 15, a = b = 3 * 2
 = 15, a = b = 6
 = 15, a = 6
 = 15, 6
 = 6

⑥

(int)(a + 6.5) % 2 + (a = b = 5)
 = (int)9.5 % 2 + (a = b = 5)
 = 9 % 2 + (a = b = 5)
 = 1 + (a = b = 5)
 = 1 + (a = 5)
 = 1 + 5
 = 6

⑦

x + a % 3 * (int)(x + y) % 2 / 4
 = x + 1 * (int)(x + y) % 2 / 4
 = x + 1 * (int)(7.2) % 2 / 4
 = x + 1 * 7 % 2 / 4
 = x + 7 % 2 / 4
 = x + 1 / 4
 = x + 0
 = 2.5

⑧

(float)(a + b) / 2 + (int)x % (int)y
 = (float)5 / 2 + (int)x % (int)y
 = 5.0 / 2 + (int)x % (int)y
 = 2.5 + (int)x % (int)y
 = 2.5 + 3 % (int)y
 = 2.5 + 3 % 2
 = 2.5 + 1

= 3.5

(3) P. 40 习题 6 (每小题均要求按计算顺序给出每步的步骤)

①

a += a			
a = a + a	+=展开	a = 12 + 12	a = 24
a = 24			

②

a -= 3			
a = a - 3	-=展开	a = 12 - 3	a = 9
a = 9			

③

a *= 2 + 3			
a *= 5	+优先级高	2 + 3	a = 12
a = a * 5	*=展开	a = 12 * 6	a = 72
a = 60			

④

a /= a + a			
a /= 24	+优先级高	a + a	a = 12
a = a / 24	/=展开	a = 12 / 24	a = 0
a = 0	//a 为整形变量		

⑤

a %= (n %= 2)			
a %= (n = n % 2)	%=优先级高	5 % 2	a = 12
a %= (n = 1)	赋值	sn = 1	a = 12
a %= 1	取运算表达式的左值		a = 12
a = a % 1	%=展开		a = 0
a = 0			

⑥

a+=a-=a*=a			
a+=a-=(a=a*a)	右结合性*=	12 * 12	a = 12
a+=a-=(a=144)	赋值	a = 144	a = 144
a+=a-=144	取表达式的左值		a = 144

a+=(a=a-144)	--优先级高	144 - 144	a = 144
a+=(a=0)	赋值	a = 0	a = 0
a+=0	+=展开	a = a + 0	a = 0
a=a+0	+运算	a = a + 0	a = 0
a = 0			

- (4) 已知 `int b=7; double a=2.5, c=4.7;` 写出表达式 `a+(int)(b/3*(int)(a+c)/2)%4` 最后的结果并说明其数据类型是实型还是整型(要求按计算顺序给出每步的步骤)。

```

a + (int)(b / 3 * (int)(a + c) / 2) % 4
=a + (int)(2 * (int)(a + c) / 2) % 4
=a + (int)(2 * (int)7.2 / 2) % 4
=a + (int)(2 * 7 / 2) % 4
=a + (int)(14 / 2) % 4
=a + (int)7 % 4
=a + 7 % 4
=a + 3
=5.5

```

- (5) 已知 `int m=5, y=21;` 则表达式 `y+=y-=m*=y` 执行后, `y` 的值是多少?(要求按计算顺序给出每步的步骤)

y += y -= m *= y	
y += y -= m = m*y	*=展开
y += y -= m =105	m*y
y += y -= 105	赋值, 并取左值
y += y= -84	--展开
y += -84	+=展开
y = y + -84	y + -84
y = -168	

【作业要求:】

- 1、**10 月 18 日前**网上提交本次作业，本文件转换为 2-b2. pdf 后提交即可
- 2、每题所占平时成绩的具体分值见网页
- 3、超过截止时间提交作业会自动扣除相应的分数，具体见网页上的说明