

(1) 求出下列字符串的长度（要求仿照下例画出具体的分解）

"\r\n\t\\A\\t\x1b\"1234\xft\x2f\33" = 15

A. "\b\\nr\v293\xf62a\"r\\av\f"

"\b\\nr\v293\xf62a\"r\\av\f" = 17

B. "\119\x20\114\x6t\186\x65\040\x5d\257\x6e\132\x6a\175\x2e"

"\119\x20\114\x6t\186\x65\040\x5d\257\x6e\132\x6a\175\x2e" = 18

(2) 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=32500;
short b=a+1500;

a = 0111 1110 1111 0100 = 32500
b = 1000 0100 1101 0000 = -31536

B. unsigned short a=60000;
short b=a;

a = 1110 1010 0110 0000 = 60000
b = 1110 1010 0110 0000 = -5536

C. short a=-4095;
int b=a;

a = 1111 0000 0000 0001 = -4095
b = 1111 1111 1111 1111 1111 0000 0000 0001 = -4095

D. unsigned short a=60000;
int b=a;

a = 1110 1010 0110 0000 = 60000
b = 0000 0000 0000 0000 1110 1010 0110 0000 = 60000

E. int a=90000;
short b=a;

a = 0000 0000 0000 0001 0101 1111 1001 0000 = 90000
b = 0101 1111 1001 0000 = 24464

F. long a=-256;
unsigned short b=a;

a = 1111 1111 1111 1111 1111 1111 0000 0000 = -256
b = 1111 1111 0000 0000 = 65280

(3) P. 37 习题 5 (每小题均要求按计算顺序给出每步的步骤)

1. $3.5 * 3 + 2 * 7 - 'a' = 10.5 + 14 - 97 = -72.5$
2. $26 / 3 + 34 \% 3 + 2.5 = 6 + 1 + 2.5 = 11.5$
3. $45 / 2 + (\text{int}) 3.14159 / 2 = 22 + 1 = 23$
4. $a=3, (a=b=(c=a+=6)) = (a=b=(c=9)) = (a=b=9) = 9$
5. $a=3*5, (a=b=3*2) = (a=6) = 6$
6. $a=3, (\text{int})(a+6.5) \% 2 + (a=b=5) = (\text{int})(9.5 \% 2 + (a=5)) = (\text{int})(1.5 + 5) = (\text{int})6.5 = 6$
7. $x=2.5, a=7, y=4.7, x+a \% 3 * (\text{int})(x+y) \% 2 / 4 = 2.5 + 7 \% 3 * (\text{int})(2.5 + 4.7) \% 2 / 4 = 2.5 + 1 * (\text{int})7.2 \% 2 / 4 = 2.5 + 7 \% 2 / 4 = 2.5 + 1 / 4 = 2.5$
8. $a=2, b=3, x=3.5, y=2.5, (\text{float})(a+b) / 2 + (\text{int})x \% (\text{int})y = (\text{float})(2+3) / 2 + (\text{int})3.5 \% (\text{int})2.5 = 2.5 + 3 \% 2 = 2.5 + 1 = 3.5$

(4) P. 38 习题 6 (每小题均要求按计算顺序给出每步的步骤)

$a = 12$

1. $a += a$ $\rightarrow a = 12 + 12 \rightarrow a = 24$
2. $a -= 3$ $\rightarrow a = 12 - 3 \rightarrow a = 9$
3. $a *= 2 + 3$ $\rightarrow a *= 5 \rightarrow a = 12 * 5 \rightarrow a = 60$
4. $a /= a + a$ $\rightarrow a /= 24 \rightarrow a = 12 / 24 \rightarrow a = 0$
5. $n=5, a \% = (n \% = 2)$ $\rightarrow n = 5 \% 2 \rightarrow n = 1 \rightarrow a = 12 \% 1 \rightarrow a = 0$
6. $a += a -= a *= a$ $\rightarrow a += a -= (a = 12 * 12) \rightarrow a += (a = 144 - 144) \rightarrow a = 0 + 0 \rightarrow a = 0$

(5) 已知 $\text{int } b=7; \text{double } a=2.5, c=4.7;$ 写出表达式 $a+(\text{int})(b/3*(\text{int})(a+c)/2)\%4$ 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)。

$a+(\text{int})(b/3*(\text{int})(a+c)/2)\%4 = 2.5+(\text{int})(7/3*(\text{int})(2.5+4.7)/2)\%4 = 2.5+(\text{int})(2*(\text{int})(7.2)/2)\%4 = 2.5+(\text{int})(2*7/2)\%4 = 2.5+(\text{int})(7)\%4 = 2.5 + 3 = 5.5$

实型

(6) 已知 $\text{int } m=5, y=21;$ 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)

1. $m = m * y$ $\rightarrow m = 5*21 = 105$
2. $y = y - m$ $\rightarrow y = 21-105 = -84$
3. $y = y + y$ $\rightarrow y = -84-84 = -168$

【作业要求:】

- 1、10月10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