

For each of the following structure declarations, determine the offset of each field, the total size of the structure, and its alignment requirement for x86-64:

A. `struct P1 {int i; char c; int j; char d;}`

i	c	j	d	total size	alignment
0	4	8	12	16	4

B. `struct P2 {int i; char c; char d; long j;}`

i	c	d	j	total size	alignment
0	4	5	8	16	8

C. `struct P3 {short w[3], char c[3];};`

w	c	total size	alignment
0	6	10	2

D. `struct P4 {short w[5]; char *c[3];};`

w	c	total size	alignment
0	16	40	8

E. `struct P5 {struct P3 a[2]; struct P2 t;};`

P3	P2	total size	alignment
0	24	40	8