

## LA Worksheet #5

1. 32 bytes

2. struct  $\rightarrow$  size 51, bounded on 1

int  $\rightarrow$  size/bound = 4

56 bytes

3. int  $\rightarrow$  size/bound = 4

struct  $\rightarrow$  size = 16, bound = 8

24 bytes

4. char  $\rightarrow$  size/bound = 1

struct  $\rightarrow$  size = 16, bound = 8

$\hookrightarrow$  struct  $\rightarrow$  size/bound = 8

24 bytes

5. char array  $\rightarrow$  9

int  $\rightarrow$  4

12 bytes

6. char array  $\rightarrow$  10 size

struct  $\rightarrow$  4 size

12 bytes

7. long  $\rightarrow$  8 size/align

struct  $\rightarrow$  12 size/align = 2

16 bytes

8. ch array  $\rightarrow$  5 size, align = 1

struct  $\rightarrow$  24 size, align = 8

$\hookrightarrow$  int  $\rightarrow$  4 size, align = 4

$\hookrightarrow$  struct  $\rightarrow$  16 size

$\hookrightarrow$  char  $\rightarrow$  size/align = 1

$\hookrightarrow$  long  $\rightarrow$  size/align = 8

24 bytes

9. char array  $\rightarrow$  size 5, align 1

union  $\rightarrow$  size 16, align 8  $\times 3$

$\hookrightarrow$  ch array  $\rightarrow$  size 5, align 1

$\hookrightarrow$  long  $\rightarrow$  size 8, align 8

float  $\rightarrow$  size 4, align 4

struct  $\rightarrow$  60

each is 64

$64 \times 7 =$  448 bytes

10. ch array  $\rightarrow$  20, align 1

struct  $\rightarrow$  104, align 8

$\hookrightarrow$  ch  $\rightarrow$  1, 1

$\hookrightarrow$  int  $\rightarrow$  4, 4

$\hookrightarrow$  short  $\rightarrow$  2, 2

$\hookrightarrow$  struct  $\rightarrow 64 \times 7 = 448, 8$

$\hookrightarrow$  ch  $\rightarrow$  5, 1

$\hookrightarrow$  union  $\rightarrow$  16, 8  $\rightarrow$  48, 8

$\hookrightarrow$  ch array  $\rightarrow$  15, 1

long  $\rightarrow$  8, 8

$\hookrightarrow$  float  $\rightarrow$  4, 4

464 bytes