

lunch this Fri 10/2, 1:15pm

Fire & Ice

[cs50.harvard.edu/rsvp](https://cs50.harvard.edu/rsvp)

# still some left!

help yourself to Games of Fifteen on corners of stage

hours of fun

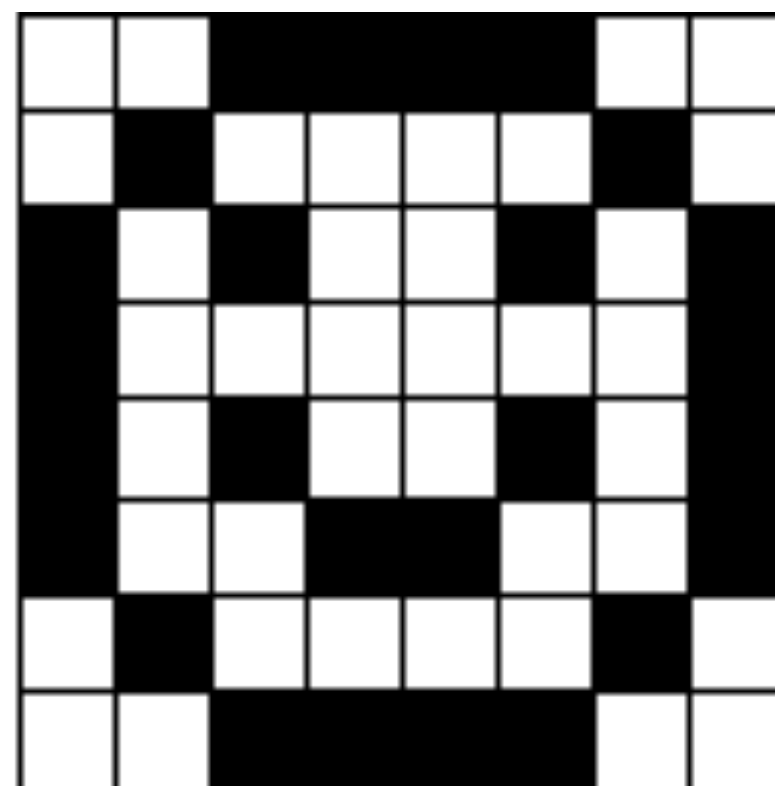
"enhance"







11000011  
10111101  
01011010  
01111110  
01011010  
01100110  
10111101  
11000011



JPEG



255 216 255

# decimal

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

# binary

0, 1

# hexadecimal

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, a, b, c, d, e, f

255

216

255

255

11111111

216

11011000

255

11111111

255

216

255

1111

1111

1101

1000

1111

1111

255

1111

1111

f

f

216

1101

1000

d

8

255

1111

1111

f

f



255

1111

1111

f

0xff

216

1101

1000

d 8

0xd8

255

1111

1111

f

f

0xff

0xff 0xd8 0xff









offset	type	name	
0	WORD	bfType	} <b>BITMAPFILEHEADER</b>
2	DWORD	bfSize	
6	WORD	bfReserved1	
8	WORD	bfReserved2	
10	DWORD	bfOffBits	
14	DWORD	biSize	} <b>BITMAPINFOHEADER</b>
18	LONG	biWidth	
22	LONG	biHeight	
26	WORD	biPlanes	
28	WORD	biBitCount	
30	DWORD	biCompression	
34	DWORD	biSizeImage	
38	LONG	biXPelsPerMeter	
42	LONG	biYPelsPerMeter	} <b>RGBTRIPLE</b>
46	DWORD	biClrUsed	
50	DWORD	biClrImportant	
54	BYTE	rgbtBlue	} <b>RGBTRIPLE</b>
55	BYTE	rgbtGreen	
56	BYTE	rgbtRed	
57	BYTE	rgbtBlue	} <b>RGBTRIPLE</b>
58	BYTE	rgbtGreen	
59	BYTE	rgbtRed	
...			
243	BYTE	rgbtBlue	} <b>RGBTRIPLE</b>
244	BYTE	rgbtGreen	
245	BYTE	rgbtRed	

struct

```
typedef struct
{
    string name;
    string dorm;
}
student;
```

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/rsvp



string

char\*

```
void swap(int a, int b)
{
    int tmp = a;
    a = b;
    b = tmp;
}
```

```
void swap(int a, int b)
{
    int tmp = a;
    a = b;
    b = tmp;
}
```

```
void swap(int* a, int* b)
{
    int tmp = *a;
    *a = *b;
    *b = tmp;
}
```







```
int main(void)
{
    int* x;
    int* y;

    x = malloc(sizeof(int)) ;

    *x = 42;

    *y = 13;

    y = x;

    *y = 13;
}
```

```
int main(void)
{
    int* x;
    int* y;

    x = malloc(sizeof(int)) ;

    *x = 42;

    *y = 13;

    y = x;

    *y = 13;
}
```



```
int main(void)
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    int* y;

    x = malloc(sizeof(int));

    *x = 42;

    *y = 13;

    y = x;

    *y = 13;
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int main(void)
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    int* x;
    int* y;

    x = malloc(sizeof(int)) ;

    *x = 42;

    *y = 13;

    y = x;

    *y = 13;
}
```

```
int main(void)
{
    int* x;
    int* y;

    x = malloc(sizeof(int)) ;

    *x = 42;

    *y = 13;

    y = x;

    *y = 13;
}
```

