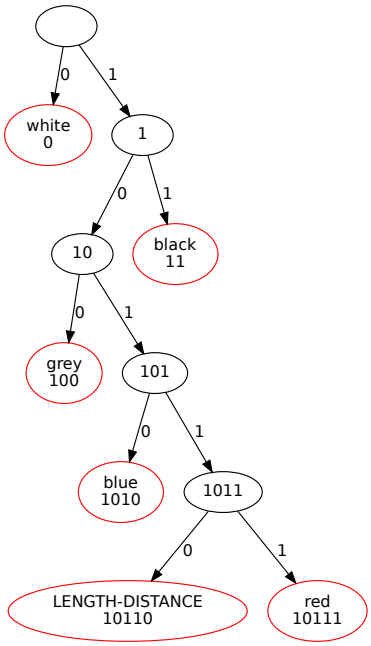
Paint Along With P0-P0

P0-P0 the Decryption Droid is starting to feel better. He now has 640 bytes of working memory which ought to be enough for any droid. He is feeling up to trying out his holographic image projector to see if it still works.

Images are represented in P0-P0's memory as a *bitmap* (i.e. a series of pixel colours).

- The first byte of the image data contains the image width, in pixels.
- The second byte of the image data contains the image height, in pixels.
- The rest of the data contains a series of pixel colour values. The first pixel corresponds to the top left corner of the image, subsequent pixel values are on the same row left-to-right. Once the first row is complete, the next pixels refer to the second row, left-to-right. This continues towards the bottom of the picture until all the rows are complete.

The pixel colours are store with a Huffman encoding, as follows, with the same LENGTH-DISTANCE token that was used for storing a song on Day 6.



Note that the LENGTH-DISTANCE token can refer to pixels which have not yet been decoded. For example the LENGTH-DISTANCE token in a sequence

```
blue, red, LENGTH-DISTANCE(5, 2)
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means that five pixels should be repeated starting from the value two pixels earlier – the blue pixel. If the first blue pixel is at position 1 and the red pixel is at position 2, then:

- pixel 3 would repeat pixel 1 (blue)
- pixel 4 would repeat pixel 2 (red)
- pixel 5 would repeat pixel 3 (blue)
- pixel 6 would repeat pixel 4 (red), and
- finally pixel 7 will repeat pixel 5 (blue).

P0-P0’s memory contains the following 238 bytes of image data:

```
00110010 00011101 11101100 01100100 00000010 10110001 01111000
00001111 10000000 00010110 00100110 01000000 11110000 00001111
10010101 01010010 11000100 01001110 10011110 00000011 10101001
01001110 10100101 01100000 00000111 11100110 00001111 11001100
00111100 00001110 10100100 10101111 10101001 00101011 00000000
01101101 10110000 11011011 01100011 11000000 11100100 10010101
01010101 01010010 01001100 00000001 11111011 01101111 01111110
11011000 11110000 01110010 10101010 01001001 00100100 10010010
01100000 00011000 11011000 01100101 10000100 00001100 10100100
10010101 00101010 10101010 01010100 11000000 00110000 11000001
10000110 00011110 00001110 01010101 01001010 10010101 01111010
10010101 00110101 10000111 00000000 01111100 00011111 11111111
11111111 11111110 00000000 00001011 11011100 01011110 11100000
00001111 00011111 10000000 00101100 00100000 00011111 01111011
11011110 11101011 11011110 11110111 00000000 11110011 00111001
00100010 10101010 10101001 00100100 11001100 00000001 01111011
11011110 11110111 10110000 10101001 10010010 00000001 00010110
00100100 00110010 11111110 00100010 10101010 10101001 00010011
10110000 10001100 10111101 11101100 00100011 10010001 01100001
00000110 01001100 00000000 00101111 01111011 11011110 11101011
00001010 10011001 01010100 10010101 01100001 00110011 00100101
11101111 01110101 10001011 10001100 10010111 01011000 01011100
11001010 11000010 11110010 11000010 11000010 10100110 01010010
00101010 10101010 10010010 01011000 10011100 11001000 10001010
10011101 00100001 10110000 11110011 11001111 11011000 11011001
```

```
10111100 01111110 01000101 01110010 10010000 11111100 00110110
11011011 01101100 01101111 01101111 00110100 11001000 10101010
10101010 01000011 10001100 01111001 11100110 11011011 01101111
11110111 10011010 01111111 11111111 11111111 11111100 01110110
00010000 01100100 11111111 01101111 01111011 00011000 11010010
00110001 10001100 11110011 01101111 11001101 10011001 10111101
10001100 11010000 10001100 11000110 10110000 11000000 00001111
10111111 11110011 11111111 11111100 11111111 10110000 11101001
10010101 10001011 11000000 01111011 00011000 10000000 111
```

What is P0-P0's favourite colour?

(Hint: the picture has a black border)

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
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