

## Solutions:

A: 1886 in binary is 11101011110

B: 1849 in binary is 11100111001

C: 1900 in resistor colours Brown, White, Red

D: 9 in resistor colours White, Black, Gold

E: 50 in binary is 110010

F: 4 in binary is 100

G: 3 in resistor colours Orange, Black, Gold

H: 12 in binary is 1100

I: 4 in resistor colours Yellow, Black, Gold

J: 2 in binary is 10

[3 in binary 11, in colour code orange, black, gold]

$1 * 3 = 3$  [1 in b=1, in h=1, in color= brown, black, gold]

$2 * 3 = 6$  [2 in b=10, in h=2, in color= red, black, gold] [6 in b=110, in h=6, in color= blue, black, gold]

$3 * 3 = 9$  [9 in b=1001, in h=9, in color= white, black, gold]

$3 * 4 = 12$  [4 in b=100, in h=4, in color= yellow, black, gold] [12 in b=1100, in h=C, in color= brown, red, black]

$3 * 5 = 15$  [5 in b=101, in h=5, in color= green, black, gold] [15 in b=1111, in h=F, in color= brown, green, black]

$3 * 6 = 18$  [6 in b=110, in h=6, in color= blue, black, gold] [18 in b=10010, in h=12, in color= brown, grey, black]

$3 * 7 = 21$  [7 in b=111, in h=7, in color= violet, black, gold] [21 in b=10101, in h=15, in color= red, brown, black]

$3 * 8 = 24$  [8 in b=1000, in h=8, in color= grey, black, gold] [24 in b=11000, in h=18, in color= red, yellow, black]

$3 * 9 = 27$  [9 in b=1001, in h=9, in color= white, black, gold] [27 in b=11011, in h=1B, in color= red, violet, black]

$3 * 10 = 30$  [10 in b=1010, in h=A, in color= brown, black, black] [30 in b=11110, in h=1E, in color= orange, black, black]