Name _____

Worksheet #2: Resistor Color Code

Many electrical components use some form of color coding scheme to indicate their value. Probably the most common electrical color code is the one that indicates the *nominal* value of resistors. In this exercise you will practice "reading" and converting resistor color codes to their numeric equivalent and vice-versa.

1) For each set of color bands, indicate the nominal resistance value based on the first three colors of the color code and then use the fourth (tolerance) band to determine the minimum and maximum value of each.

2) In the problems where the numerical values are given, work "backwards" to determine the color code. In general, use the ***closest*** favored metric abbreviation to report your answer.

Tolerances: Red = 2%; Gold = 5%; Silver = 10%; No fourth band = 20%.

Color Bands	Nominal Resistance Value	Minimum Value	Maximum Value
Example: *Red, Blue, Red, Gold*	*2.60k Ω*	*2.47k Ω*	*2.73k Ω*
1. Red, Yellow, Red			
2. Brown, Blue, Orange			
3.	520 Ω	416 Ω	624 Ω
4. Gray, Green, Black, Gold			
5.	6.1 kΩ	5.49 kΩ	6.71 kΩ
6. Green, Red, Silver			
7. Red, Blue, Gold			
8. Brown, Brown, Brown			
9.	120 mΩ	96 mΩ	144 mΩ
10. Violet, Gray, Red, Gold			
11. Yellow, Orange, Black			
12.	6.8 kΩ	5.44 kΩ	8.16 kΩ
13. Green, Violet, Orange			
14. Blue, Red, Silver, Gold			
15. Yellow, Brown, Red			
16.	10 Ω	9.5 Ω	10.5 Ω
17. Brown, Red, Gold			
18. Gray, Blue, Red			
19. Red, Brown, Gray, Red			
20.	720 Ω	648 Ω	792 Ω

Please be neat. No scribbling or scratching out. I suggest pencil.