



A diagram consisting of several colored circles (yellow, orange, purple) and lines (yellow, orange, purple) is overlaid on the code. A yellow circle is at the top right, with a yellow line connecting it to the parameter 'k' in the function signature. A purple circle is at the top left, with a purple line connecting it to the parameter 'n'. An orange circle is at the top center, with an orange line connecting it to the variable 'res'. Another orange circle is to the right of the 'if' statement, with an orange line connecting it to the expression 'n - k'. A yellow circle is at the bottom left, with a yellow line connecting it to the variable 'i' in the for loop. Another yellow circle is at the bottom center, with a yellow line connecting it to the expression 'i + 1'.

```
public static int binomialCoefficient(int n, int k) {  
    int res = 1;  
    if (k > n - k)  
        k = n - k;  
  
    for (int i = 0; i < k; ++i) {  
        res *= (n - i);  
        res /= (i + 1);  
    }  
    return res;  
}
```