1. $\boxed{55}$

2. From #1, we know that the first 10 consecutive counting numbers is $1+2+3+\ldots+10 = 55$. The sum of the first 10 consecutive counting even numbers is:

$$\begin{aligned} 2+4+6+\ldots+20 &= 2\times1+2\times2+2\times3+\ldots+2\times10 && (1)\\ &= 2\times(1+2+3+\ldots+10) && (2)\\ &= 2\times55=\boxed{110} && (3)\end{aligned}$$

Note that line (2) is an application of the distributive property, $a \times (b+c) = a \times b + a \times c$.

3. $\boxed{9}$

4. $\boxed{499}$

5. $\boxed{5}$

6. Our three two-digit numbers and one one-digit number can look like this:

	A	B
	C	D
	E	F
+		G
1	0	0

This means B + D + F + G = 10 or 20. The only way for B + D + F + G = 10 is if B, D, F, G = 1, 2, 3, 4 (not in any particular order). Then A + C + E = 5 + 6 + 7 = 18 so we get a sum of 190, which is not what we're looking for. That means B + D + F + G = 20. There are a number of ways we can add four numbers from 1 to 7 to get 20 so instead let's look at A + C + E. If B + D + F + G = 20 then we carry a 2 so A + C + E + 2 = 10, or A + C + E = 8. A, C, E = 1, 2, 5 or 1, 3, 4 (not in any particular order). But we want the largest number possible so we want A, C, E = 1, 2, 5 (since 5 gives the largest 10's digit). Then B, D, F, G = 3, 4, 6, 7. The largest two digit number then is $\boxed{57}$.

7. If n is the smallest of the five consecutive even numbers, then the other four even numbers are $n+2, n+4, n+6$, and $n+8$. Their sum is 320 so we get the following equation:

$$\begin{aligned}
n+(n+2)+(n+4)+(n+6)+(n+8) &= 320 \\
n+n+2+n+4+n+6+n+8 &= 320 \\
n+n+n+n+n+2+4+6+8 &= 320 \\
(n+n+n+n+n)+(2+4+6+8) &= 320 \\
5n+20 &= 320 \\
5n &= 300 \\
n &= \boxed{60}
\end{aligned}$$

8. $\boxed{63}$

9. A line runs through two lines so we need all the combinations of two points we can get: 10 possibilities for the first point and 9 possibilities for the second point give us $10 \times 9 = 90$ possible lines. However, this means we count each line twice since, for example, choosing point A first and point B second gives the same line as choosing point B first and point A second. So we have twice as many lines as we need, $90 \div 2 = \boxed{45}$.

10. $10 + 11 + \cdots + 30 = 420$. The only numbers from 10 to 30 that will be replaced are 14, 21, and 28 (replaced with 1.4, 2.1, and 2.8). $14 - 1.4 = 12.6$, $21 - 2.1 = 18.9$, and $28 - 2.8 = 25.2$ so the sum is reduced by $12.6 + 18.9 + 25.2 = 56.7$ so our sum is $420 - 56.7 = \boxed{363.3}$.