3. A computer programing team has 14 members: 8 of the members are women and 6 of the members are men. How many ways can a group of 7 be chosen to work on a project if at most 3 women are in the group?

$$\binom{6}{6}\binom{8}{1} + \binom{6}{5}\binom{8}{2} + \binom{6}{4}\binom{8}{3}$$

6 men 1 woman 5 men 2 women 4 men 3 women.

4. Find the sum $2+2^2+2^3+2^4+2^5+\cdots+2^{26}$. (Your answer should not contain any dots or any summation signs.)

$$\text{Sum} = 2\left(1+2+2^2+\cdots+2^{25}\right) = 2\,\frac{1-2^{26}}{1-2}$$