Certainly! Here are some basic mathematical equations and notations commonly used in computer vision and data science:

1. **Equations**:
   * **Linear Equation**: �=��+�*y*=*mx*+*b* (represents a straight line where �*m* is the slope, �*b* is the y-intercept).
   * **Quadratic Equation**: ��2+��+�=0*ax*2+*bx*+*c*=0 (solves for �*x* in a quadratic polynomial equation).
   * **Normal Distribution**: �(�∣�,�2)=12��2exp⁡(−(�−�)22�2)*f*(*x*∣*μ*,*σ*2)=2*πσ*2​1​exp(−2*σ*2(*x*−*μ*)2​) (probability density function of a normal distribution with mean �*μ* and variance �2*σ*2).
   * **Bayes' Theorem**: �(�∣�)=�(�∣�)⋅�(�)�(�)*P*(*A*∣*B*)=*P*(*B*)*P*(*B*∣*A*)⋅*P*(*A*)​ (relates the conditional probability of event �*A* given �*B* to the conditional probability of �*B* given �*A*).
2. **Notations**:
   * **Summation**: ∑�=1���∑*i*=1*n*​*xi*​ (sum of ��*xi*​ from �=1*i*=1 to �*n*).
   * **Product**: ∏�=1���∏*i*=1*n*​*xi*​ (product of ��*xi*​ from �=1*i*=1 to �*n*).
   * **Set Notation**: {�∣� satisfies some condition}{*x*∣*x* satisfies some condition} (represents a set of elements that satisfy a given condition).
   * **Matrix Notation**: �**A** (represents a matrix), ���**A***ij*​ (denotes the element in the �*i*-th row and �*j*-th column of matrix �**A**).
   * **Vector Notation**: �**x** (represents a column vector), ��**x***T* (denotes the transpose of vector �**x**).
   * **Derivative**: ����(�)*dxd*​*f*(*x*) or �′(�)*f*′(*x*) (represents the derivative of function �(�)*f*(*x*) with respect to �*x*).
   * **Gradient**: ∇�(�)∇*f*(**x**) (represents the gradient vector of function �(�)*f*(**x**) with respect to vector �**x**).
   * **Integral**: ∫���(�) ��∫*ab*​*f*(*x*)*dx* (represents the definite integral of function �(�)*f*(*x*) from �*a* to �*b* with respect to �*x*).
   * **Probability**: �(�)*P*(*X*) (represents the probability of event �*X*), �(�∣�)*P*(*X*∣*Y*) (represents the conditional probability of event �*X* given event �*Y*).

Understanding these basic mathematical equations and notations will enable you to interpret and work with mathematical expressions commonly encountered in computer vision and data science tasks.