**LINEAR EQUATIONS**

**MID POINT FORMULA**

($\frac{X\_{2}+X\_{1}}{2}$,$\frac{Y\_{2}+Y\_{1}}{2}$)

**SLOPE**

M= $\frac{Y\_{2}-Y\_{1}}{X\_{2}-X\_{1}}$

**DISTANCE FORMULA**

D=$\sqrt{\left(X\_{2}-X\_{1}\right)^{2}+\left(Y\_{2}-Y\_{1}\right)^{2}}$

**EQUATIONS OF A LINE**

* SLOPE-INTERCEPT FORM

 Y=MX+B

* POINT-SLOPE FORM

 $Y-Y\_{1}=M\left(X-X\_{1}\right)$

* STANDARD FORM

 AX+BY=C