**Linear Equations Formula Sheet:**

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| **Slope-Intercept Form:**$$y=mx+b$$**slope** = $m$**x-int** = $-b/m$**y-Int** = $b$ | **Point-Slope Form:** $y-y\_{1}=m(x-x\_{1})$**slope** = $m$point: $(x\_{1},y\_{1})$ | **Standard Form:**$$Ax+By=C$$**slope** = $-A/B$**x-int** = $C/A$**y-Int** = $C/B$ | **Intercept Form:**$$\frac{x}{a}+ \frac{y}{b}=1$$**slope** = $-b/a$**x-int** = a**y-int** = b |
| **Slope Formula:**$$m= \frac{y\_{2}-y\_{1}}{x\_{2}-x\_{1}}$$ | **X-Intercept:**Set y = 0, Solve for x.**Y-Intercept:**Set x = 0, Solve for y. | **Midpoint Formula:**$$M=\left(\frac{x\_{1}+x\_{2}}{2}, \frac{y\_{1}+y\_{2}}{2}\right)$$ | **Distance Formula:**$$D= \sqrt{\left(x\_{2}-x\_{1}\right)^{2}+\left(y\_{2}-y\_{1}\right)^{2}}$$ |
| **Horizontal Lines:**$$m=0$$$$y=k$$ | **Vertical Lines:**$$m=undefined$$$$x=h$$ | **Parallel Lines:**$$m\_{1}= m\_{2}$$ | **Perpendicular Lines:**$$m\_{1}= \frac{-1}{m\_{2}}$$ |