Name:
YouTube - Fort Bend Tutoring - Graphing Quadratic Functions (Vertical Parabolas) - Guided Notes

| Standard Form |  |  |
| :---: | :---: | :---: |
| $y=a x^{2}+b x+c$ |  |  |
| $\mathrm{a}=$ | upwards |  |
| $\mathrm{a}=$ |  | maximum |
| $\|\mathrm{a}\|>1$ | Vertical Stretch |  |
| $0<\|\mathrm{a}\|<1$ |  | Wide |
| Vertex $=$ | $\mathrm{h}=$ | $\mathrm{k}=\mathrm{f}(\mathrm{h})$ |
| AXIS OF SYMMETRY $\mathrm{x}=$ |  |  |


| Vertex Form |  |  |
| :---: | :--- | :--- |
| $\mathrm{y}=\mathrm{a}(\mathrm{x}-\mathrm{h})^{2}+\mathrm{k}$ | upwards |  |
| $\mathrm{a}=$ |  | maximum |
| $\mathrm{a}=$ | Vertical Stretch |  |
| $\|\mathrm{a}\|>1$ |  | Wide |
| $0<\|\mathrm{a}\|<1$ | $\mathrm{~h}=$ |  |
| Vertex $=$ |  |  |
| AXIS OF SYMMETRY $\mathrm{x}=\mathrm{f}(\mathrm{h})$ |  |  |

Name:

Spaces for Examples

| $f(x)=x^{2}$ |  |
| :---: | :---: |
| $f(x)=x^{2}-2 x-2$ |  |
| $f(x)=(x-2)^{2}-4$ |  |

Name:

