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Lesson Plans

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10-3-2006

### Family of Functions

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*The College at Brockport*

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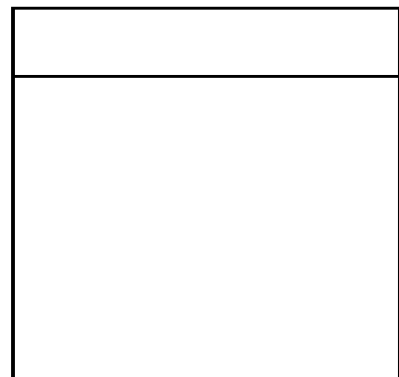
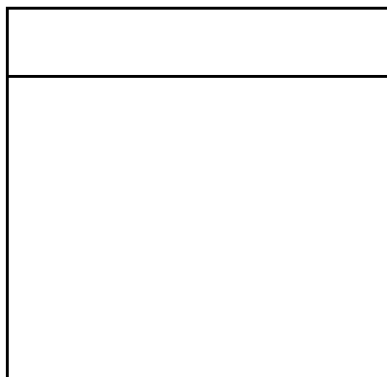
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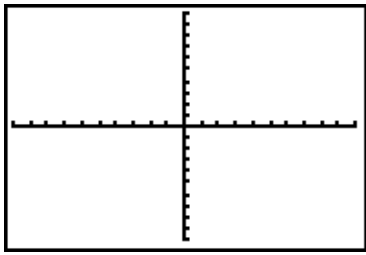
Name \_\_\_\_\_ Per \_\_\_\_ Date \_\_\_\_\_

ALG 2.7 Family of Functions

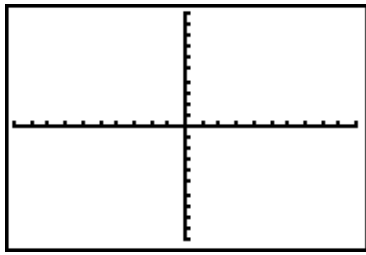
- 1) Using the graphing calculator, graph equation and sketch on the grid provide. Use the Standard Window.
- 2) Group the equation and sketches into **three** categories based upon how they look. Paste them in the space provided.



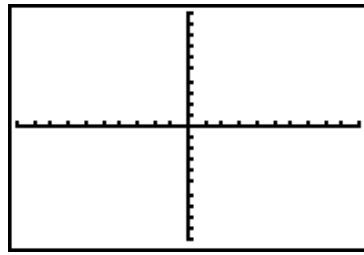
- 3) What similarities do you see about the **graphs** in each category?
- 4) What similarities do you see about the **equations** in each category?



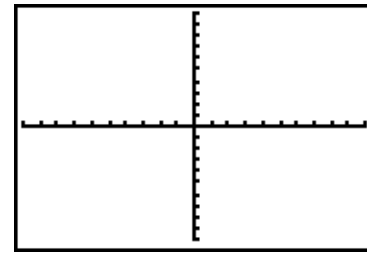
$$y = x^2 - 6$$



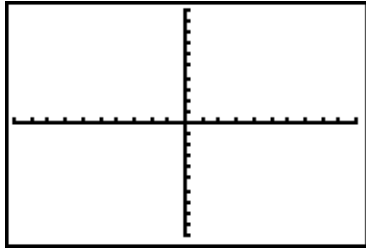
$$y = x + 2$$



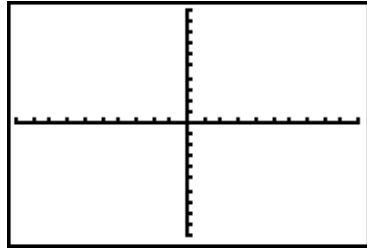
$$y = |x| - 4$$



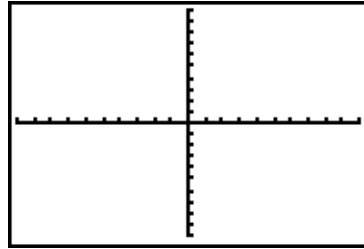
$$y = 7x$$



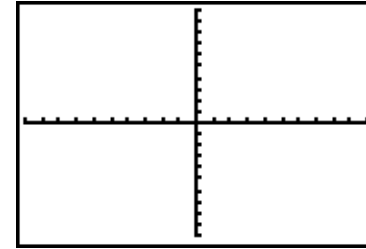
$$y = -|x + 5|$$



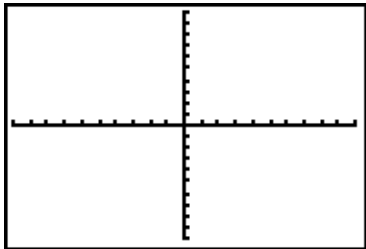
$$y = x^2 + 1$$



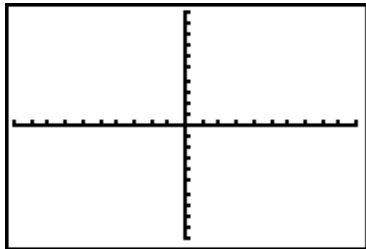
$$y = 3x^2$$



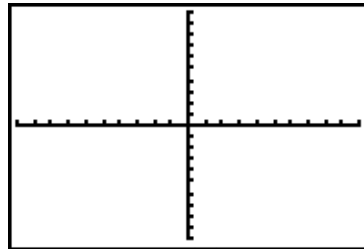
$$y = -3x$$



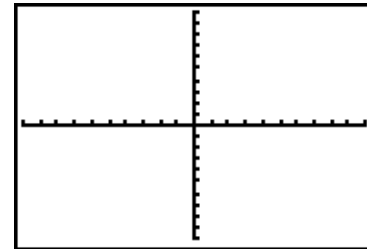
$$y = x^2 - 6$$



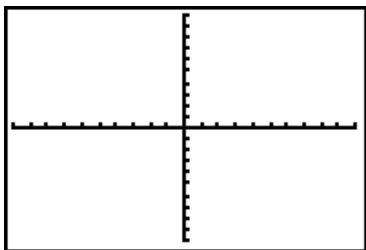
$$y = x + 2$$



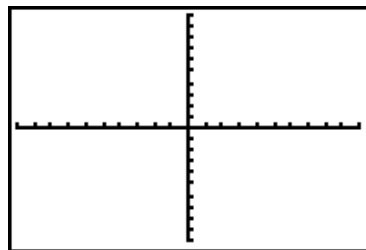
$$y = |x| - 4$$



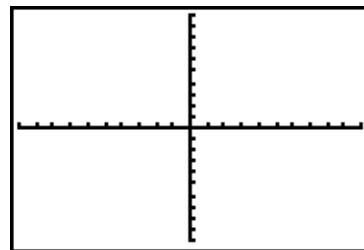
$$y = 7x$$



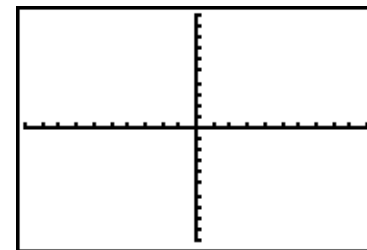
$$y = -|x + 5|$$



$$y = x^2 + 1$$



$$y = 3x^2$$



$$y = -3x$$