NAME_____

Families of Functions Practice

For exercises #1-16, use what you know about functions to...

a. Sketch a picture of what you think each equation would look like if it were graphed. Will it be a line, a parabola, a hyperbola, a v-shaped graph...?

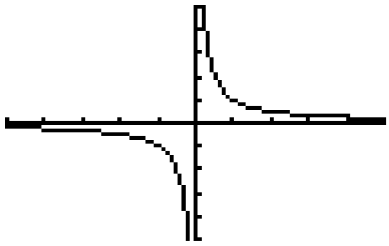
b. Name what family each equation belongs to.

1. $y = 2x$
2. $y = x^2 + 2$
3. $y = \frac{2}{x}$
4. $y = \sqrt{x}$
5. $y =$ [illegible] $+ 2$
6. $y = x + 6$
7. $y = 2x^2$
8. $y =$ [illegible] $- 2$
9. $y = 5\sqrt{x}$
10. $y = \frac{1}{x} + 2$
11. $y = 10^x$
12. $y = 2x^3 + 6$
13. $y = \frac{6}{x}$
14. $y = -x^3 + 2$
15. $y = 5^x$
16. $y = 3x - 8$

Check your predictions regarding what each graph looks like using a graphing calculator, then fix any mistakes.

For #17–30 , identify the name of the family of functions to which each graph belongs.

17.



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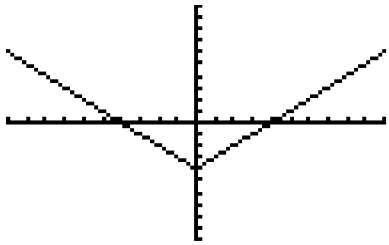

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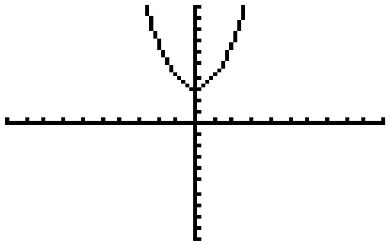

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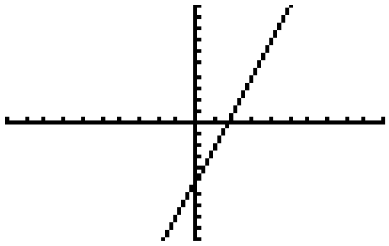

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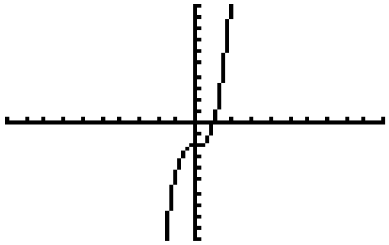

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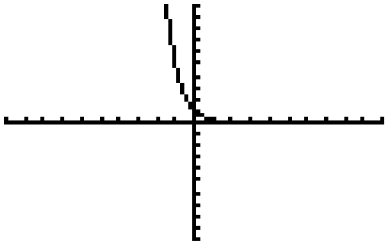

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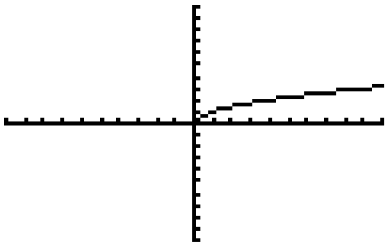

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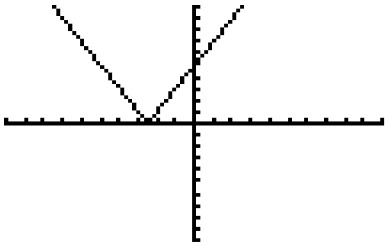

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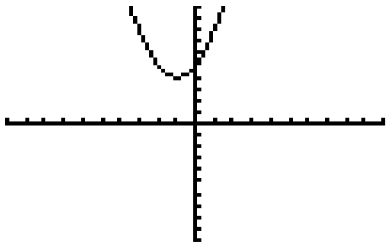

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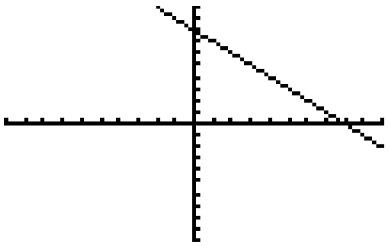

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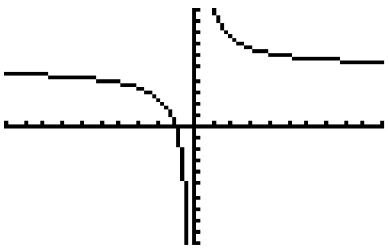

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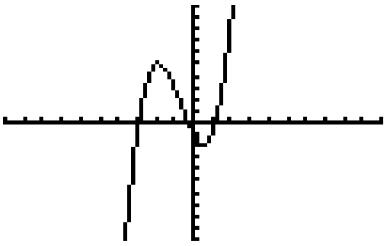

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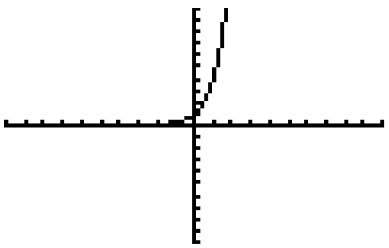
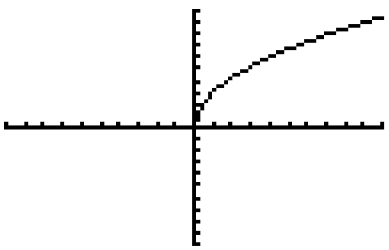
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