Name: Key (Selected Answers) Period: _____

Score: _____/_____ _____%

HW 2-5 HONORS: Positive, Negative, & Intercepts

Identify the indicated characteristics for each graph using set builder and interval notation.

1. Positive

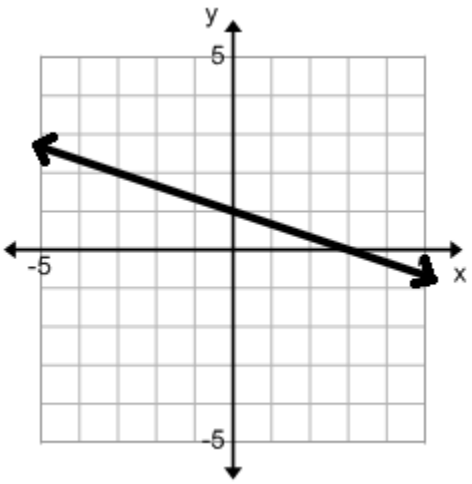
Set Builder: $x < 3$

Interval: $(-\infty, 3)$

2. Negative

Set Builder:

Interval:



3. Intercepts

x-intercepts: $f(3) = 0$ *y*-intercepts: $f(0) = 1$

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6. Positive

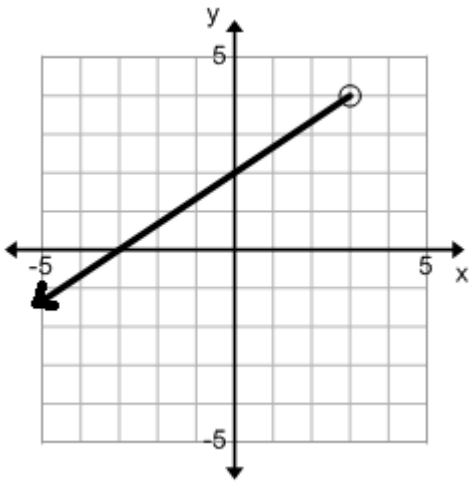
Set Builder:

Interval:

7. Negative

Set Builder: $x < -3$

Interval: $(-\infty, -3)$



8. Intercepts

x-intercepts: *y*-intercepts:

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11. Positive

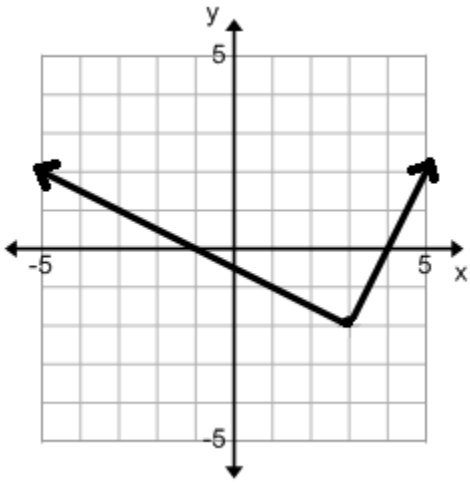
Set Builder: $x < -1$ and $x > 4$

Interval: $(-\infty, -1)\ (4, \infty)$

12. Negative

Set Builder:

Interval:



13. Intercepts

x-intercepts: $f(4) = 0$ $f(-1) = 0$ *y*-intercepts: $f(0) = \frac{1}{2}$

Identify the indicated characteristics for each graph using set builder notation.

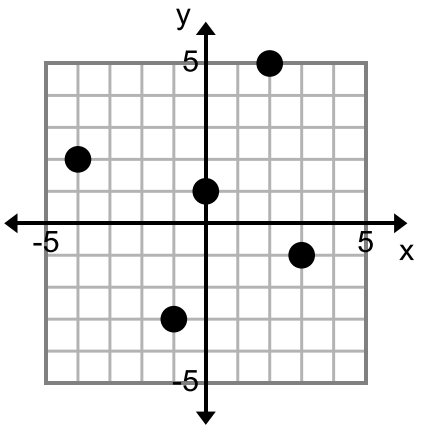
16. Positive

Set Builder:

17. Negative

Set Builder:

$\{-1,3\}$



18 Intercepts

x-intercepts: *y*-intercepts:

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21. Positive

Set Builder:

$1 < x < 5$

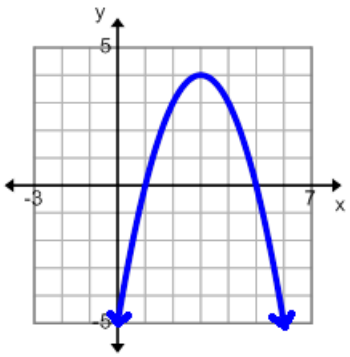
Interval:

$(1,5)$

22. Negative

Set Builder:

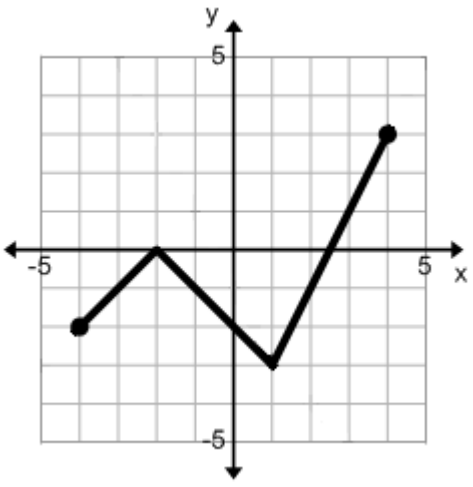
Interval:



23. Intercepts

x-intercepts: $f(5)=0$ and $f(1)=0$ *y*-intercepts: $f(0)=-5$

Answer the following problems in **INTERVAL NOTATION**.



26. Is the graph below a function? _____ Why? _____

27. Domain: $[-4,4]$ Range: $[-3,3]$

28. Continuity: (circle your answer) Continuous, Non-Continuous, or Discrete?

29. Increasing: $(-4,-2)$ $(1,4)$ Decreasing: $(-2,1)$

30. minimum: _____ maximum: _____

31. Positive: $(2.5,4]$ Negative: $[-4,-2)$ $(-2,2.5)$

32. *x*-intercept: _____ *y*-intercept: _____