College Algebra	**Name:** _____
Study Guide 4	**Class:** _____
Due Date: _____	**Score:** _____

No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat & Organized

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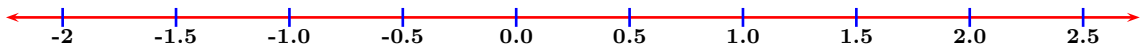
1. (2 points) Write $\{x \mid -1 \leq x < 2\}$ in interval notation, and graph it below.

1. _____



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2. (2 points) Write $(-1.5, .5]$ in set–builder notation, and graph it below.

2. _____

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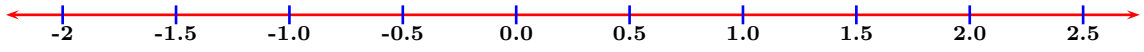
3. (2 points) Write $\{x \mid x > -2\}$ in interval notation, and graph it below.

3. _____



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4. (2 points) Write $(-\infty, 1]$ in set–builder notation, and graph it below.

4. _____

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5. (2 points) Write $[-2, 1]$ in set–builder notation, and graph it below.

5. _____

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6. (2 points) Write $(-1, \infty)$ in set–builder notation, and graph it below.

6. _____

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7. (2 points) Write $\{x \mid -2 < x \leq 2\}$ in interval notation, and graph it below.

7. _____

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8. Consider $y = |x - 2|$,

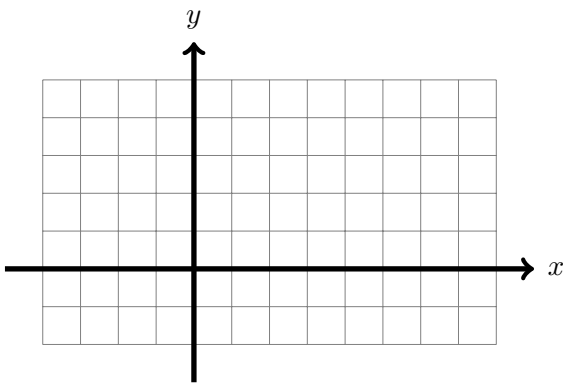
(a) (2 points) Find its y-intercept.

(a) _____

(b) (2 points) Find its x-intercepts.

(b) _____

(c) (3 points) Graph.



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9. Consider $y = |x + 2|$,

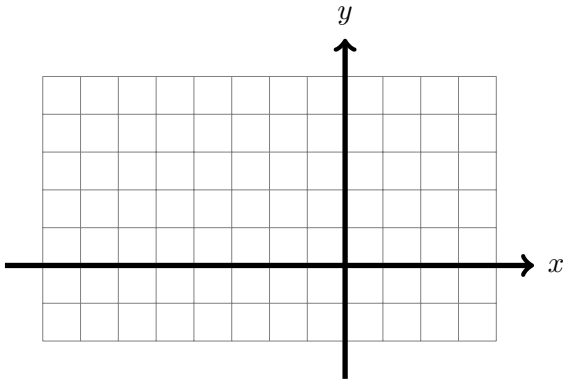
(a) (2 points) Find its y-intercept.

(a) _____

(b) (2 points) Find its x-intercepts.

(b) _____

(c) (3 points) Graph.



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10. Consider $y = -|x - 2|$,

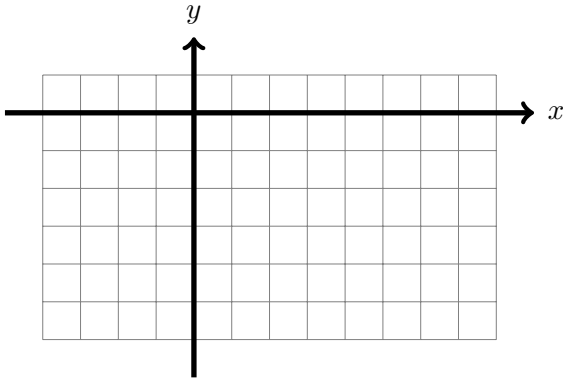
(a) (2 points) Find its y-intercept.

(a) _____

(b) (2 points) Find its x-intercepts.

(b) _____

(c) (3 points) Graph.



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11. Algebra Review Problems:

(a) (3 points) Factor completely: $4x^2 - 3x - 7$

(a) _____

(b) (3 points) Factor completely: $27x^3 - 1000$

(b) _____

(c) (3 points) Factor completely: $125x^3 + 27y^3$

(c) _____

(d) (3 points) Facor completely: $x^4 - 16$

(d) _____

(e) (3 points) Factor completely: $x^4 - 13x^2 + 36$

(e) _____