

- Please do this assignment on other sheets of paper, not on this sheet. Show your work.
- A. Answer using set notation and graph each answer. Show all steps in the solution and explicitly cite the definition of absolute value when you use it.

[1]  $|x| = 12$

[2]  $|x| = -2$

[3]  $|x| = 0$

[4]  $|x - 4| = 7$

[5]  $|z + 6| = |2z - 3|$

[5]  $|y + 9| = |y - 4|$

## Answers

■ A.

[1]  $x \in \{-12, 12\}$    [2]  $\emptyset$    [3]  $\{0\}$    [4]  $x \in \{-3, 11\}$    [5]  $\{-1, 9\}$

[6]  $x \in \{\frac{-5}{2}\}$