

Algebra 2: Homework 6

- Solve: $|x| + 3 = 4$
- Solve: $5 + |m| = 1$
- Solve: $|2 - k| = 3$
- Solve: $|4 - x| = 3x$
- Which equation has $\{ \}$ as its solution set?
 - $|x| = 7$
 - $|-x| = 7$
 - $|x| = -7$
 - $|x - 7| = 0$
- Which expression correctly states the derived equations for $|x| + 3 = 5$?
 - $(x + 3 = 5) \vee (x + 3 = -5)$
 - $(x + 3 = 5) \wedge (x + 3 = -5)$
 - $(x = 2) \vee (x = -2)$
 - $(x = 2) \wedge (x = -2)$
- Which expression has the entire real-number line as its graph?
 - $(x > 6) \wedge (x \leq 10)$
 - $(x > 6) \vee (x \leq 10)$
 - $(x < 6) \wedge (x \geq 10)$
 - $(x < 6) \vee (x \geq 10)$
- Solve and graph: $-14 < 2(x - 5) \leq 14$
- Solve and graph: $(7x - 9 > 12) \vee (9 - x \geq 8)$
- Which of the following numbers are *rational*?

| | |
|---------------------|--------------------|
| 0.14114111411114... | 0.3333333... |
| 0.142814281428... | 0.14280984528 |
| 0.12927783934... | $0.9\overline{83}$ |