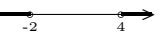
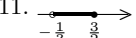

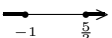


Review 1A

Math 110

The learning center is open for help.

1. Simplify the following: (a) i^{29} , (b) $(3 - i) - (2 + 3i)$, (c) $\frac{4 + 3i}{2 - i}$
2. Solve $(3 - k) + 3(x - k) = 9$ for x .
3. Solve $\frac{x}{x - 1} - 1 = \frac{4}{x + 1}$ for x .
4. Solve $2x^2 - 5x - 3 = 0$ by factoring.
5. Solve $x^2 - 6x + 10 = 0$ by completing the square.
6. Solve $2x^2 + 2x + 3 = 0$ by completing the square.
7. Solve $x^2 = x - 1$ by using the quadratic formula.
8. Solve $\sqrt{2x + 1} - \sqrt{x + 9} = 2$.
9. Find all values of k where the equation $3x^2 + kx + 8 = 0$ has two real roots.
10. Graph the solution to $x^2 - 2x - 8 > 0$.
11. Graph the solution to $\frac{2x - 3}{3x + 1} \leq 0$.
12. Solve the equation $|2t + 1| = 3$.
13. Graph the solution to the inequality $\left| \frac{1 - 2x}{3} \right| \leq 3$.
14. Graph the solution to the inequality $|3x - 1| \geq 4$.

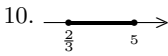
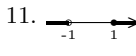
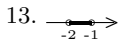
Answers to problems above: 1. (a) i , (b) $1 - 4i$, (c) $1 + 2i$ 2. $x = \frac{4k+6}{3}$ 3. $x = 5/3$ 4. $x = -\frac{1}{2}, x = 3$ 5. $x = 3 \pm i$ 6. $x = \frac{1}{2} \pm \frac{\sqrt{5}}{2}i$
 7. $x = \frac{1 \pm i\sqrt{3}}{2}$ 8. $x = 40$ 9. $-4\sqrt{6} < k < 4\sqrt{6}$ 10.  11.  12. $t = 1$ $t = -2$ 13.  14. 

Review 1B

Math 110

Calculators may be checked out of the library

1. Simplify the following: (a) i^{-2} , (b) $(-2 + 3i) - (4 - 3i)$, (c) $\frac{4 - i}{1 + 3i}$
2. Solve $kx + 3 = 2x + k$ for x .
3. Solve $\frac{1}{x(x+1)} - \frac{1}{x} = \frac{2}{x+1}$ for x .
4. Solve $3x^2 + x - 2 = 0$ by factoring.
5. Solve $x^2 + 2x + 5 = 0$ by completing the square.
6. Solve $2x^2 + x + 1 = 0$ by completing the square.
7. Solve $2x^2 + 3x = 1$ by using the quadratic formula.
8. Solve $\frac{1}{x^6} - \frac{7}{x^3} = 8$.
9. Find all values of k where the equation $kx^2 = x + 1$ has exactly one double root.
10. Graph the solution to $3x^2 - 17x + 10 \leq 0$.
11. Graph the solution to $\frac{x-1}{x+1} \geq 0$.
12. Solve the equation $\left| \frac{x+3}{2} \right| = 3$.
13. Graph the solution to the inequality $|2x+3| < 1$.
14. Graph the solution to the inequality $\left| \frac{2x+5}{3} \right| \geq 1$.

Answers to problems above: 1. (a) -1 , (b) $-6 + 6i$, (c) $\frac{1}{10} - \frac{13}{10}i$ 2. $x = \frac{k-3}{k-2}$ 3. No Solution 4. $x = \frac{2}{3}, x = -1$ 5. $x = -1 \pm 2i$
 6. $x = -\frac{1}{4} \pm \frac{\sqrt{7}}{4}i$ 7. $x = \frac{-3 \pm \sqrt{17}}{4}$ 8. $x = \frac{1}{2}, x = -1$ 9. $k = -\frac{1}{4}$ 10.  11.  12. $x = 3$ $x = -9$ 13. 
 14. 