Solve algebraically. Graph the solution and state the solution algebraically.

1. $4x^2 < 64$

2. $4x(x+1) \geq 3$

3. $x^3 - 4x^2 + 3x > 0$

4. $3x^2 - \frac{37}{20}x - \frac{3}{10} < 0$

5. $x^4 - 26x^2 + 25 < 0$

6. $\frac{x^2-4}{6} - \frac{2x-3}{4} \geq \frac{1}{12}$

Review:

7. Solve by quadratic formula: $\sqrt{2}x^2 + 5x + 2\sqrt{2} = 0$

8. Determine the nature of the solutions of the equation $2x^2 - 5x + \sqrt{8}$.

9. Solve for x in terms of p, q, and r: $r^2x^2 - r(p+q)x + pq = 0$.

10. Find k so that the equation $k^2x^2 - 8x + 4 = 0$ has 2 real roots.