

Module 3 Quadratics concepts to know

1. Imaginary number (powers of i , square root of a negative number, operations of complex numbers)
2. Simplifying radicals
3. Discriminant (How it is calculated and what it means)
4. Factoring (GCF, 'easy' $a=1$, 'hard' $a \neq 1$, difference of perfect squares)
5. Features of a quadratic
6. Finding equation of a parabola given vertex / x -intercepts
7. Finding vertex / axis of symmetry (from standard form $(-b/2a)$, from intercept form)
8. Completing the square (solving vs putting in vertex form)
9. Solving quadratics (look to factor first, if not factorable, use quadratic formula)
10. Application of quadratics
11. Graphing parabolas (from standard form, vertex form, intercept form – must find y – intercept and x -intercept (when possible))