

ALG2
Sem 1
Final Exam

Study Guide 2

1. a) $y = 33x^2 - 20x + 690$
b) 2642 waterfowl

2. $x = \pm \frac{1}{3}i$

3. $x = 5$
 $x = -11$

4. AOS: $x = 3$
Vertex $(3, -4)$
 $P'(4, -3)$
 $Q'(1, 0)$

5. a) $x = 1$ ^(1x1000) 1000 units
b) $y = 10$ ^(10x100) = \$1000

6. $x = -4$
 $x = \frac{3}{4}$

7. $x = \pm \sqrt{3}$

8. 4.23 seconds

9. $4i\sqrt{5}$

10. $-9 + 8i$

11. $-5 - 4i$

12. -20

13. $-17 - i$

14. 100

15. $x = -6 \pm \sqrt{11}$

16. $x = -8 \pm i\sqrt{2}$

17. $y = (x+2)^2 - 7$

18. $x = 4$
 $x = -\frac{1}{2}$

19. $x = \frac{3 \pm i\sqrt{51}}{6}$