

IV. Answer Key

1. a) negative b) two imaginary roots/ no real roots
2. a) zero b) one real solution/double root
3. a) positive b) two real roots
4. a) zero b) one real solution/double root
5. a) negative b) two imaginary roots/ no real roots
6. a) positive b) two real roots
7. two real roots
8. two real roots
9. two imaginary roots/ no real roots
10. two real roots
11. two imaginary roots/ no real roots
12. two real roots
13. one real solution/double root
14. 0
15. 2
16. 2
17. 1
18. 0
19. 0
20. 1
21. $a < \frac{9}{20}$
22. $a = 9$
23. $a < \frac{9}{8}$
24. $c > \frac{9}{2}$
25. $c > -4$
26. no, b is squared resulting in a positive number