SM2H

Name:_____ Period:_____

SM2H 3.8 HW-Quadratic Formula 2018-19

Simplify.

1. $\sqrt{121}$

2. $\sqrt{-81}$

3. $\sqrt{\frac{4}{9}}$

4. $\sqrt{48}$

5. $\sqrt{-75}$

6. $\sqrt{\frac{64}{8}}$

7. $\frac{3 \pm \sqrt{54}}{6}$

8. $\frac{10 \pm \sqrt{-288}}{10}$

Find the discriminant of each quadratic equation and state the number and type of solutions.

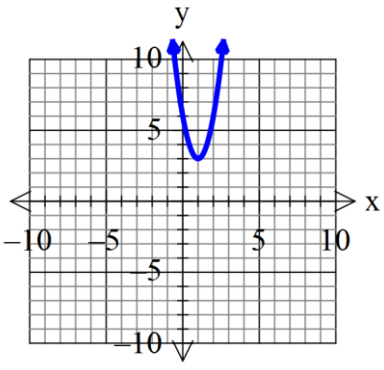
9. $2k^2 - 8k + 8 = 0$

10. $-2r^2 - 5r - 2 = 0$

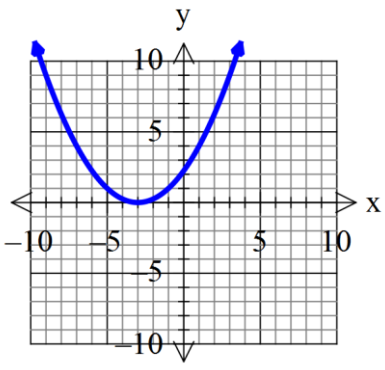
11. $-3t^2 - 5 = -7t$

For each of the graphs,
a) state the number of roots (solutions)
b) state the types of roots (solutions)
c) What type of number would you expect to see for the discriminant (positive, negative or zero)?

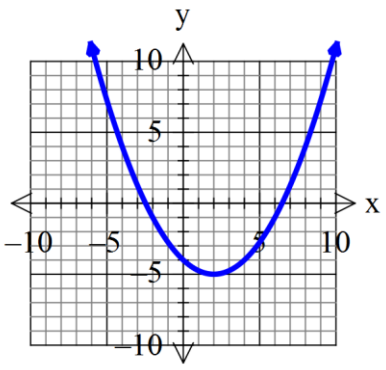
12.



13.



14.



Solve each equation using the quadratic formula.

15. $x^2 + x - 12 = 0$

a=_____ b=_____ c=_____

16. $4n^2 - 2n + 7 = 0$

a=_____ b=_____ c=_____

17. $5p^2 - 4p + 4 = 0$

a=_____ b=_____ c=_____

18. $8u^2 - 7 = 0$

a=_____ b=_____ c=_____

19. $2q^2 = 5q - 4$

a=_____ b=_____ c=_____

20. $9t^2 - 7t = 0$

a=_____ b=_____ c=_____

21. $k^2 - 14 = -3 + 2k$

a=_____ b=_____ c=_____

22. $-14 - 4x = -9 + 8x^2$

a=_____ b=_____ c=_____