A2H

NAME_____

WS Quadratic Graphing (graph theory) + Misc

Period ____

Identify the x-intercepts for the graph of the equation given

1. $y = (x+5)(x-7)$

2. $y = (7)(x-4)(x+2)$

3. $y = (2x)(x-9)$

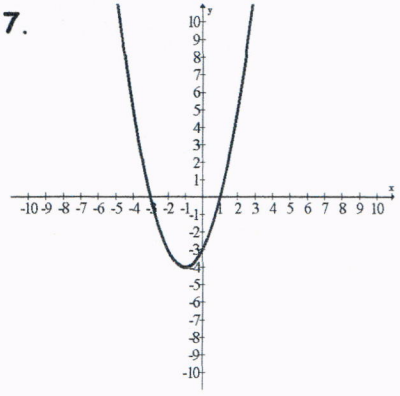
4. $y = (3x+2)(5x-1)$

5. $y = (x+5)(x+3)(x-1)(x-7)$

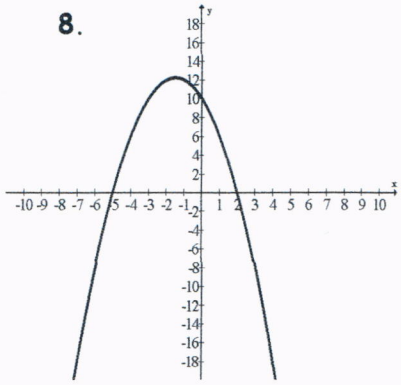
6. $y = x^2 + 9x + 18$

Identify the equation shown in the graph:

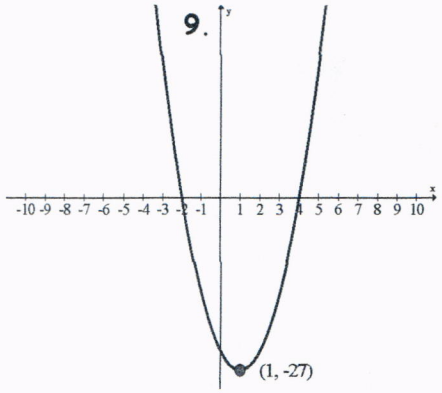
7.



8.



9.



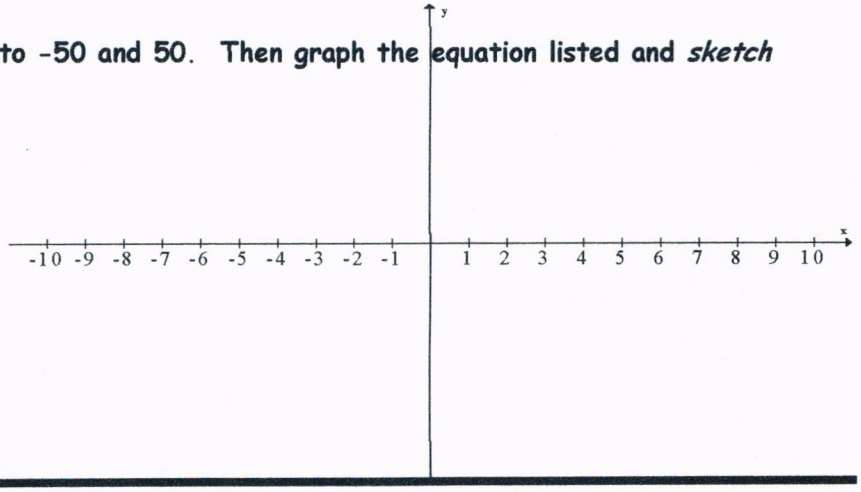
10. **In your calculator set the y-min and y-max to -50 and 50. Then graph the equation listed and *sketch* each one in the blank graph provided.**

$y = (x+2)(x-6)$

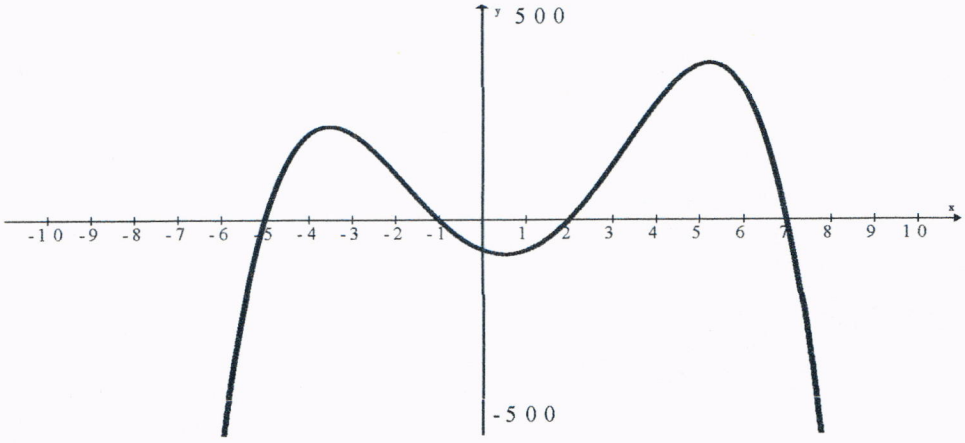
$y = 2 \times (x+2)(x-6)$

$y = 3 \times (x+2)(x-6)$

$y = -1 \times (x+2)(x-6)$

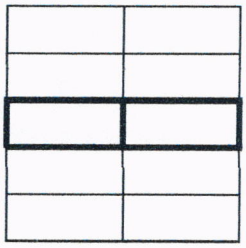


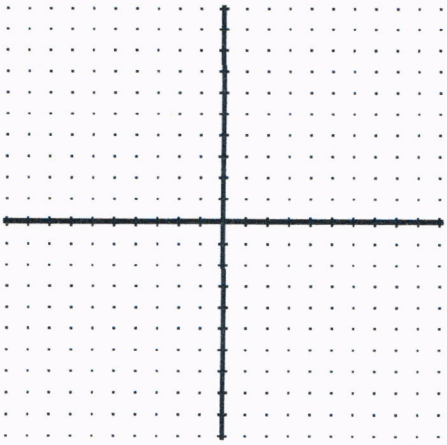
11. **Use what you know about graphs to identify the equation whose graph is shown here:**



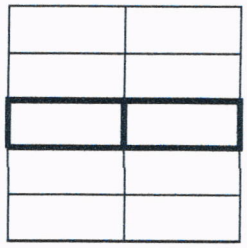
Graph the following:

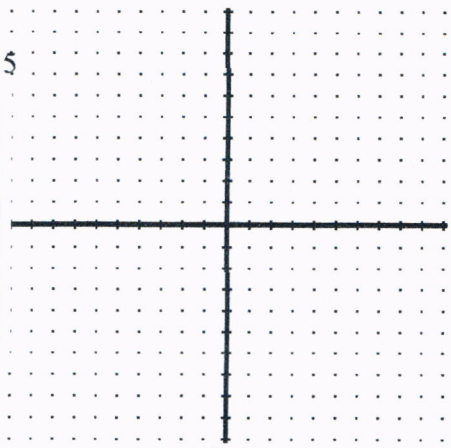
12. $y > x^2 + 6x + 5$





13. $y > -x^2 - 8x - 15$

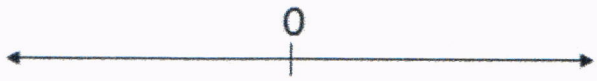




Graph the following:

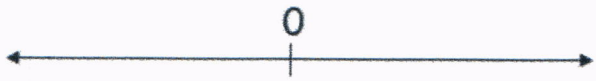
14. $x^2 + 6x + 5 < 0$

15. $x^2 - 9x \geq -14$



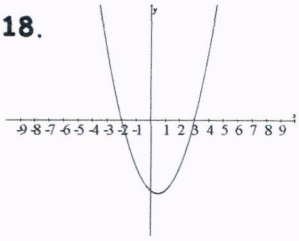
16. $x^2 + 2x \leq 15$

17. $x^2 - 8 > 2x$

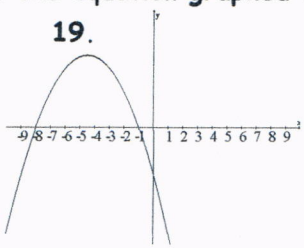


What are the solutions to the equation graphed here:

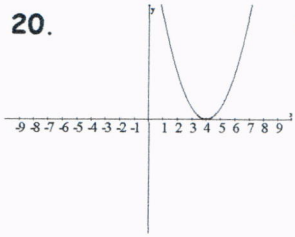
18.



19.



20.



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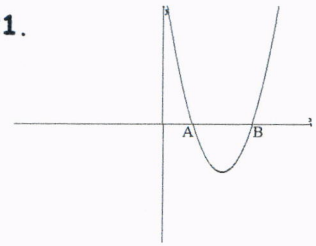
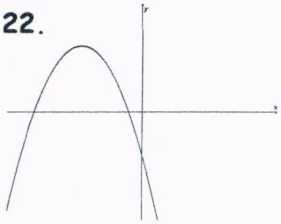
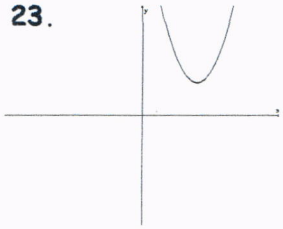


For each of the following graphs, determine how many and what kind of solutions the equation has.

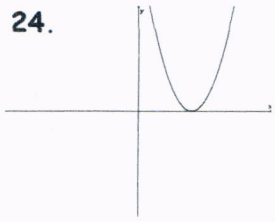
22.



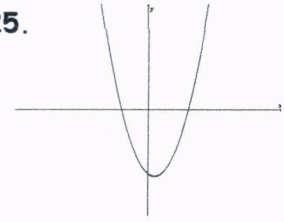
23.



24.



25.



9. What can you tell about the descriminant of the equation graphed in #22?

10. What can you tell about the descriminant of the equation graphed in #23?

11. What can you tell about the descriminant of the equation graphed in #24?

12. What can you tell about the descriminant of the equation graphed in #25?