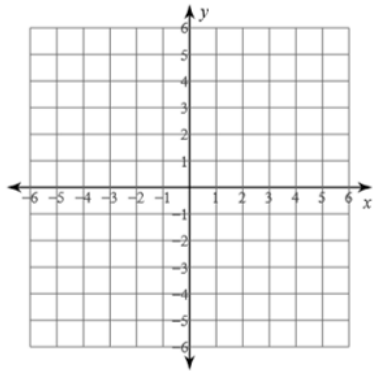


Pre-Calculus 11 Holiday Homework***Due Date: February 25th by 4pm***

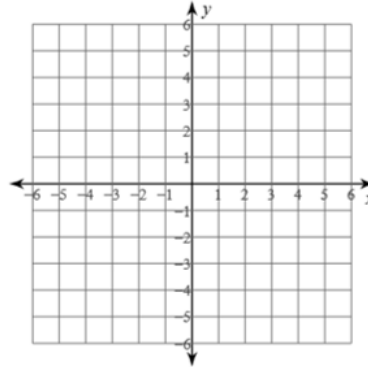
Directions: Complete the package over the holiday to review Math 10 and look ahead at PC11.
Have a safe and fun holiday, see you at the end of February! ☺

Math 10 Linear Function Graphing Review**Sketch the graph of each line.**

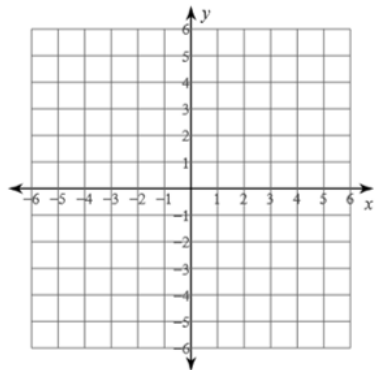
1) $y = \frac{7}{2}x - 2$



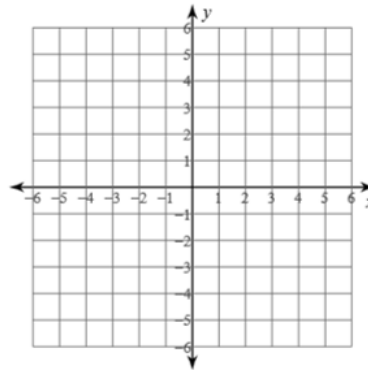
2) $y = -6x + 3$



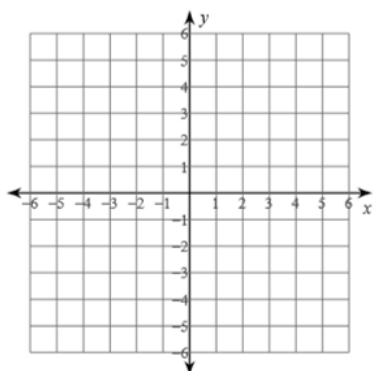
3) $y = -5$



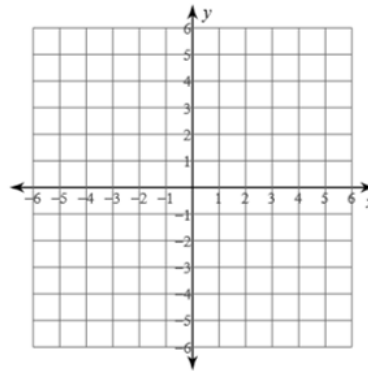
4) $y = \frac{6}{5}x + 1$



5) $y = \frac{1}{4}x + 2$



6) $x = 5$



Name: _____ Block: _____

PC11 Chapter 3 Factoring & Solving – Factor the following using different methods (Greatest Common Factor (GCF), Difference of Squares, Perfect Square Trinomials, etc.). **Note:** some may be unfactorable.

1. $10x^2y - 15xy^2$

2. $12x^2 - 9x + 15$

3. $13m + 26m^2 - 39m^3$

4. $9m^2 - 4n + 12$

5. $17x^2 + 34x + 51$

6. $-16x^4 - 32x^3 - 80x^2$

7. $16r^2 - 16r - 12$

8. $3x^2 - 20x + 28$

9. $4x^2 - 20x + 25$

10. $14x^5 - 24x^4$

Name: _____ Block: _____

Factor completely.

1. $3x + 36$

2. $4x^2 + 16x$

3. $x^2 - 14x - 40$

4. $x^2 + 4x - 12$

5. $x^2 - 144$

6. $x^4 - 16$

7. $81x^2 - 49$

8. $50x^2 - 72$

9. $2x^3 - 16x^2 - 18x$

10. $4x^2 + 17x - 15$

11. $-8x^2 - 15x + 2$

12. $x^3 - 3x^2 + 5x - 15$

13. $5rs + 25r - 3s - 15$

14. $125x^3 - 64$

15. $2x^3 + 128y^3$

Solve the following equations.

16. $(x - 4)^2 - 9 = 0$

17. $(x - 10)^2 - 48 = 0$

18. $x^2 + 14x + 45 = 0$

19. $x^2 + 6x - 10 = 30$

20. $4x^2 - 100 = 0$

21. $6x^2 - 48x - 54 = 0$

22. $4x^2 + 2x = 12$

23. $9x^2 + 7x - 4 = 0$

24. $3x^2 + 9x - 6 = 0$

25. $x^3 - 5x^2 - 4x + 20 = 0$

Note: If you cannot factor to solve, use the **Quadratic Formula!**

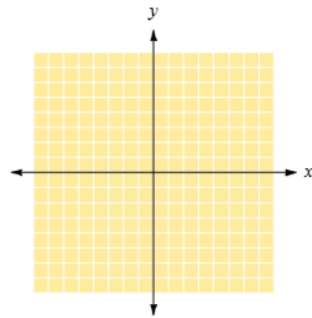
$$\text{Where } 0 = ax^2 + bx + c, \quad x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Name: _____ Block: _____

PC11 Chapter 4 Graphing Practice – Complete the table of values by finding y , then graph the points and connect them by drawing a smooth curve. (HINT – download the APP “DESMOS” to help you, it’s free!)

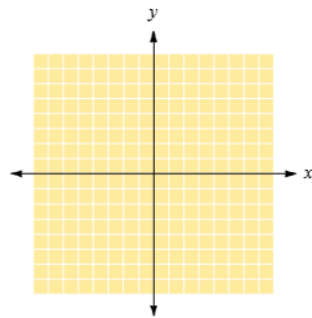
1. $y = x^2 + 1$

x	y
-2	
-1	
0	
1	
2	



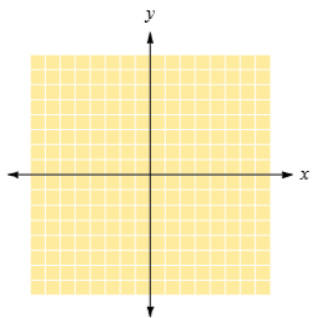
2. $y = x^2 - 2$

x	y
-2	
-1	
0	
1	
2	



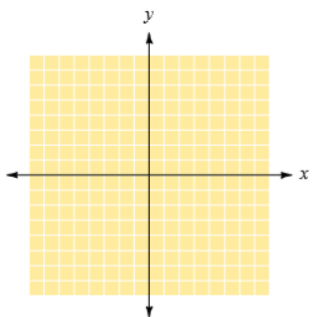
3. $y = x^2 - 4$

x	y
-2	
-1	
0	
1	
2	



4. $y = x^2 + 3$

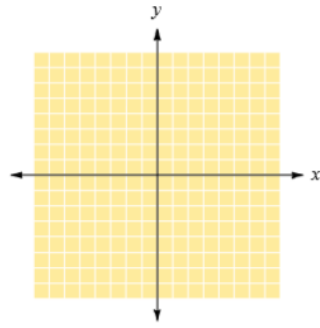
x	y
-2	
-1	
0	
1	
2	



Name: _____ Block: _____

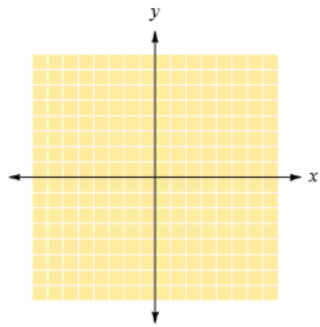
5. $y = x^2 - 4x$

x	y
0	
1	
2	
3	
4	



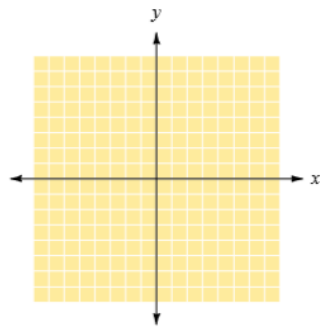
6. $y = x^2 + 2x$

x	y
-3	
-2	
-1	
0	
1	



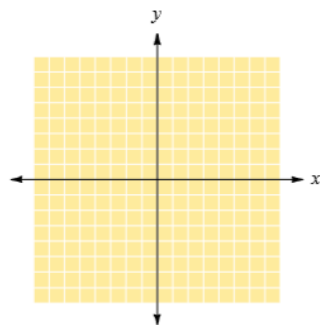
7. $y = x^2 + x$

x	y
-2	
-1	
0	
1	
2	



8. $y = x^2 - 3x$

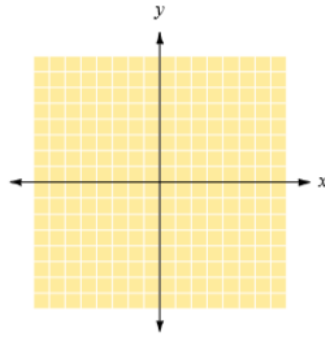
x	y
-1	
0	
1	
2	
3	



Name: _____ Block: _____

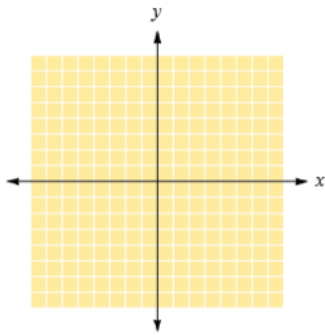
9. $y = x^2 - 2x - 3$

x	y
-1	
0	
1	
2	
3	



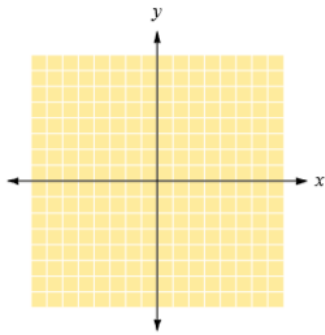
10. $y = x^2 - 5x + 6$

x	y
0	
1	
2	
3	
4	



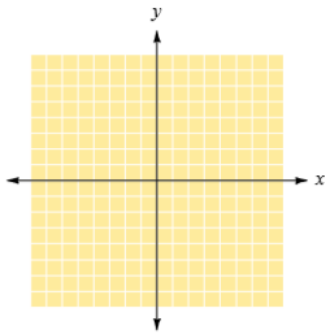
11. $y = x^2 - x - 6$

x	y
-1	
0	
1	
2	
3	



12. $y = x^2 + 3x - 4$

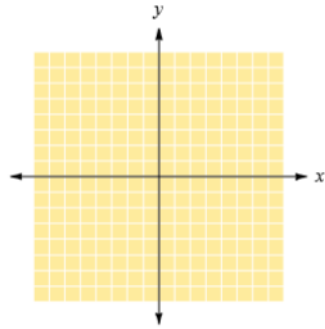
x	y
-4	
-3	
-2	
-1	
0	



Name: _____ Block: _____

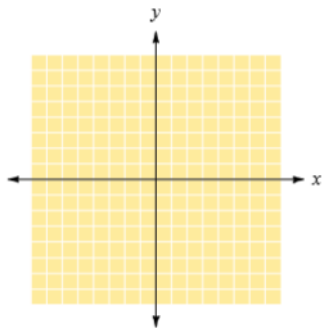
13. $y = -x^2 + 2$

x	y
-2	
-1	
0	
1	
2	



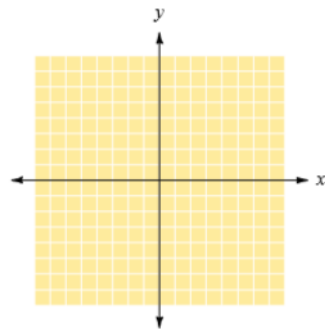
14. $y = -x^2 - 2$

x	y
-2	
-1	
0	
1	
2	



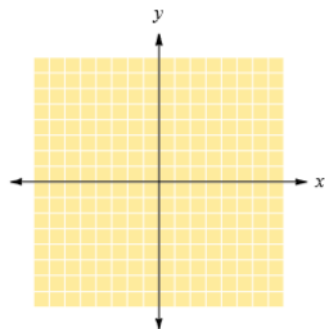
15. $y = -x^2 - 4x$

x	y
-4	
-3	
-2	
-1	
0	



16. $y = -x^2 + 2x$

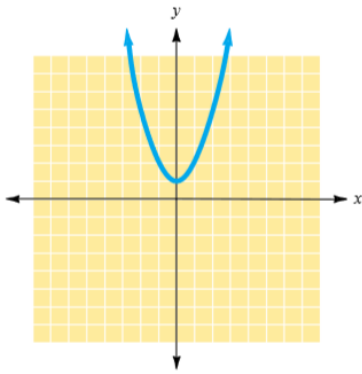
x	y
-1	
0	
1	
2	
3	



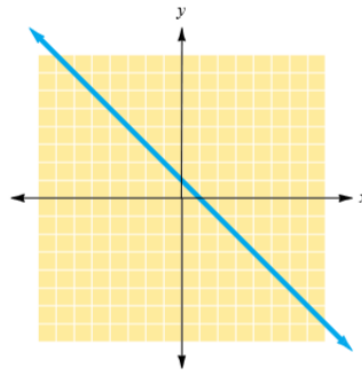
Name: _____ Block: _____

Match each graph with the correct equation on the right.

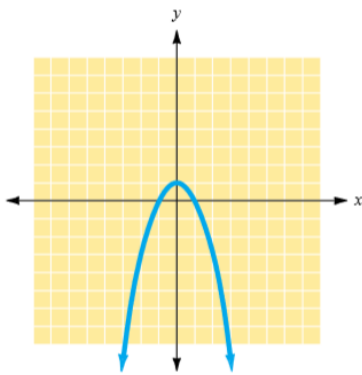
17.



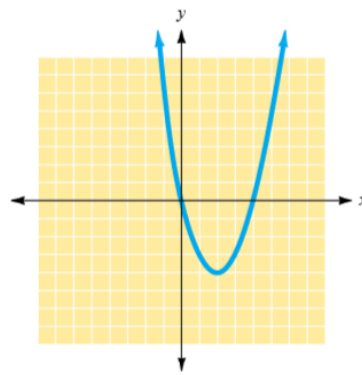
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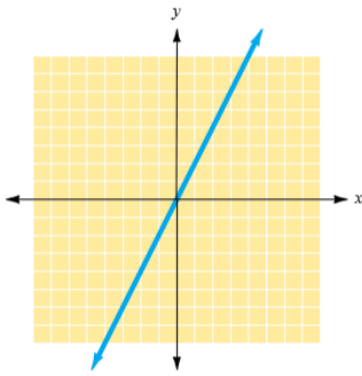
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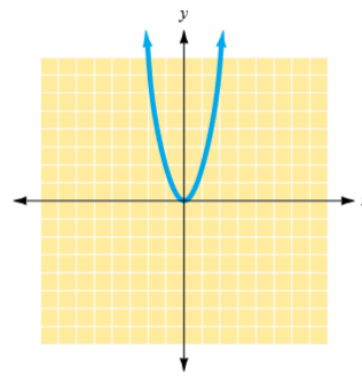
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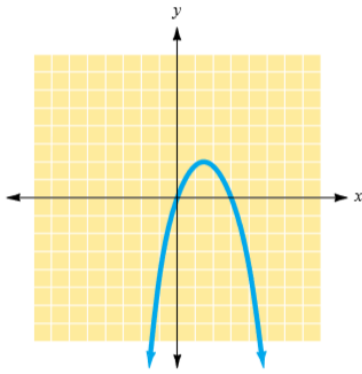
21.



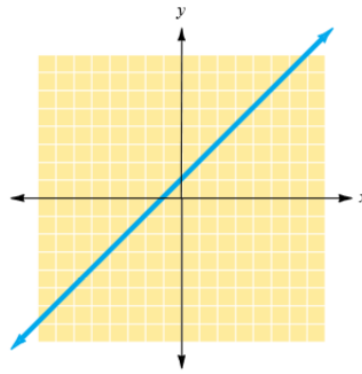
22.



23.



24.



Equations:

(a) $y = -x^2 + 1$

(b) $y = 2x$

(c) $y = x^2 - 4x$

(d) $y = -x + 1$

(e) $y = -x^2 + 3x$

(f) $y = x^2 + 1$

(g) $y = x + 1$

(h) $y = 2x^2$