# Summer Assignment 2022
# Incoming Algebra 1 CP

Dear Student,

This summer assignment will prepare you for success in Algebra 1. Please complete the following exercises this summer and be prepared to submit your work by Tuesday September 13 to your Algebra 1 teacher.

This packet will be counted as extra credit on one assignment during marking period 1 (your teacher will decide on the assignment). In order to receive extra credit, all work must be shown neatly in the space provided or attached to this packet on separate sheets of paper. Answers written with no work shown (where needed) will receive no credit. You are encouraged to work in groups to help each other, however copying is unacceptable. This packet consists of 7th and 8th grade material, so it is expected that you are coming in to this course knowing this material. If there is anything in this packet that you do not remember, scan the QR code for that section and it will take you to a video lesson on that topic.

If you have any questions, please reach out to your math teacher or jtalewsky@bbrook.k12.nj.us.

Sincerely,

The BBHS Math Department

**Write an algebraic expression for each phrase.**

1. 11 more than y.

2. 4 less than twice v.

3. 8 less the product of x and 3.

**Evaluate each expression.**

4. $20 \div (4 - (10 - 8))$

5. $-4 - (1 - 5) - (-4)^2$

6. $\dfrac{45}{8(5-4)-3}$

**Evaluate each expression with the values given.**

7. $x(z + 3) + 1 + 3 - y$; use $x = 6$, $y = -5$, and $z = 2$

8. $-3 \div 3(a + c(b + 5) - (-6 + a))$; use $a = 1$, $b = -6$, and $c = -4$

**Simplify each expression.**

9. $10n - 4n$

10. $-10(-8x + 9) - 8x$

11. $7(1 + 9v) - 8(-5v - 6)$

12. $-2(-6x - 9) - 4(x + 9)$

**Write each number in scientific notation.**

13. $0.000006$

14. $5400000$

**Write each number in standard notation.**

15. $2.66 \times 10^{4}$

16. $1.5 \times 10^{-2}$

**Solve each equation.**

17. $15 + b = 23$

18. $-15 + n = -9$

19. $-5 = \frac{a}{18}$

20. $-143 = -11x$

21. $9x - 7 = -7$

**Solve each equation.**

22. $2(n+5) = -2$

23. $\frac{v+9}{3} = 8$

24. $-18 - 6k = 6(1+3k)$

25. $24a - 22 = -4(1-6a)$

26. $-5(1-5x) + 5(-8x-2) = -4x - 8x$

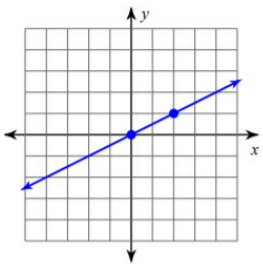
**Solve each proportion.**

27. $\frac{9}{6} = \frac{x}{10}$

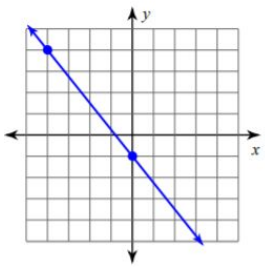
28. $\frac{7}{b+5} = \frac{10}{5}$

**Find the slope from the graphs below.**

29.




30.



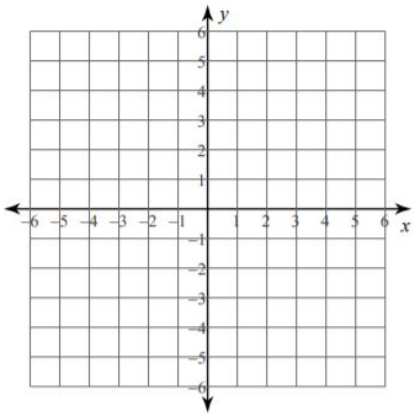
**Find the slope using the given points.**

31. $(-4, 7), (-6, -4)$

32. $(17, -13), (17, 8)$

**Plot each of the points on the graph below. Label each point with its corresponding letter.**

33. A(-1,4) B(5,-1) C(0,-4) D(-6,0) E(-1,-5) F(6,3)



**Graph the linear equation. Use any method. A table has been provided if you'd like to use it.**

34. $y = \frac{1}{4}x - 1$

| x | y |
|---|---|
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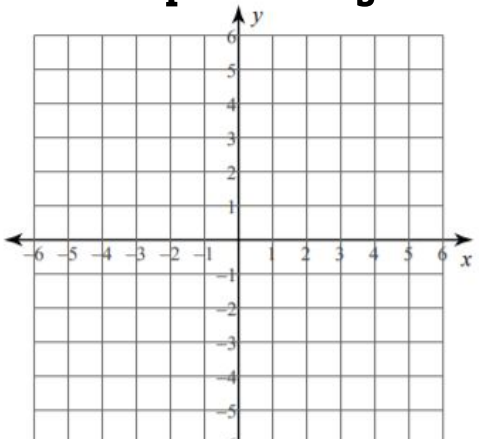
| | |



35. $x - 2y = -6$

| x | y |
|---|---|
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