

NKHS Algebra 2 Students,

The Algebra 2 summer practice is designed to review skills from Algebra 1 that are essential to your success in Algebra 2. Bring this **completed** work on the **first** day of school. During the first two class, you will be given the opportunity to ask questions about the topics listed in the prerequisite material. **YOU WILL TAKE A SUMMER PACKET ASSESSMENT ON THE THIRD CLASS.**

Your task is to complete the problems with work shown. If there is a problem you do not remember or seems like new material, you must be resourceful and utilize online resources. Please purchase a three ring binder for class. You will need lined paper, graph paper, and a pen or pencil. The school will provide you with a calculator during class time and after school but it is helpful to have a scientific calculator at home.

The intention of the summer practice is not for you to spend your summer doing math. Enjoy the month of July. Pace out the work through the month of August. This will allow you to start school better prepared. If this work is too overwhelming or difficult, you may want to discuss your course selection with your guidance counselor.

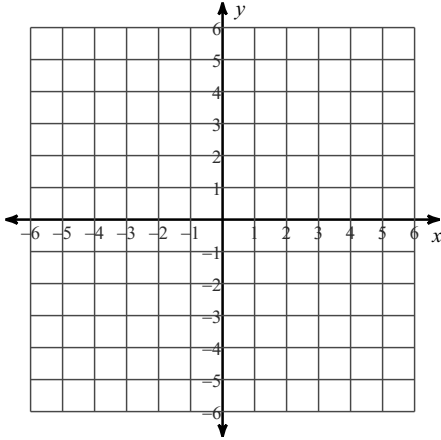
North Kingstown High School Math Teachers

## Algebra 2 CP Summer Packet

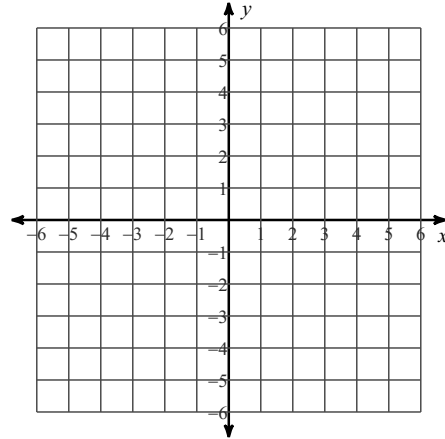
Date \_\_\_\_\_ Period \_\_\_\_\_

Sketch the graph of each line.

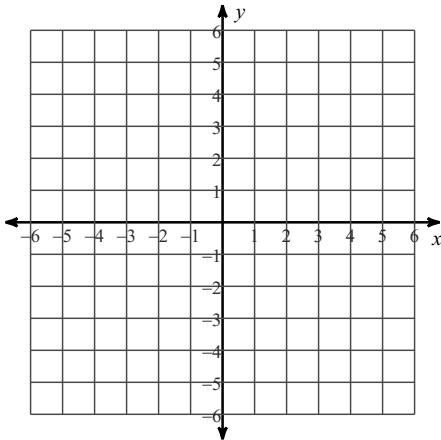
1)  $y = \frac{3}{2}x$



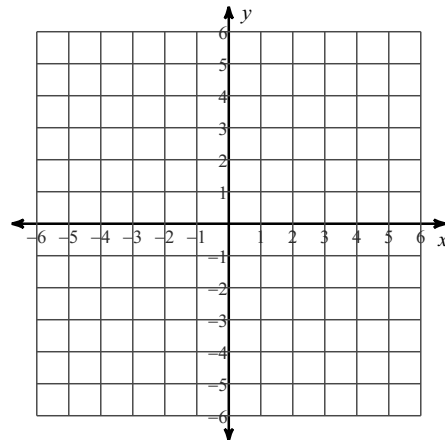
2)  $y = -7x + 3$



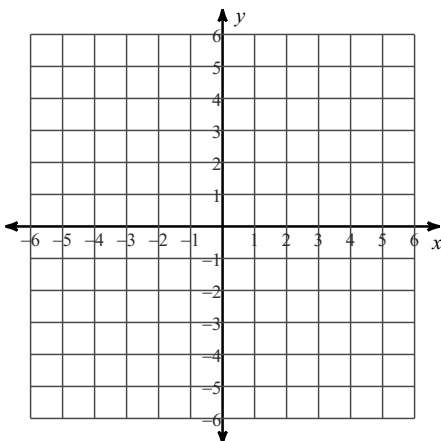
3)  $y = \frac{1}{4}x + 2$



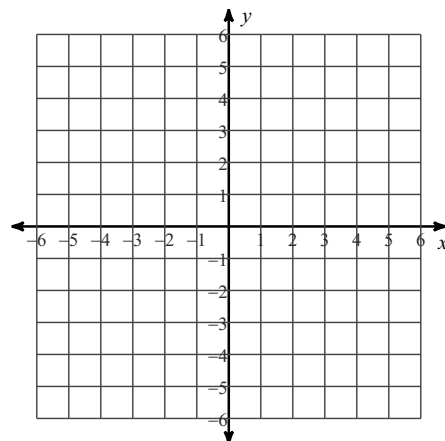
4)  $y = 1$



5)  $x - y = 3$

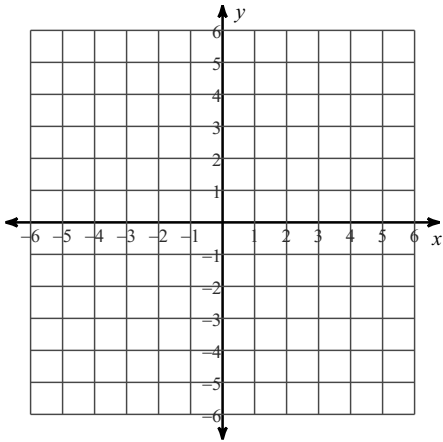


6)  $3x + 5y = -15$

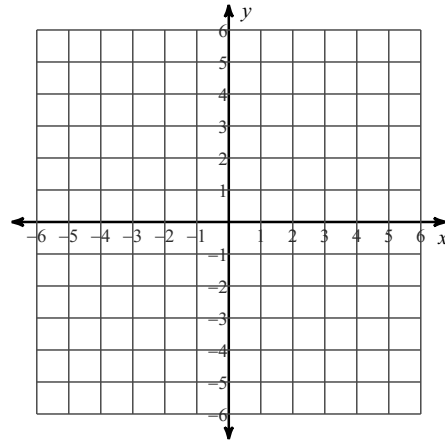


Sketch the graph of each linear inequality.

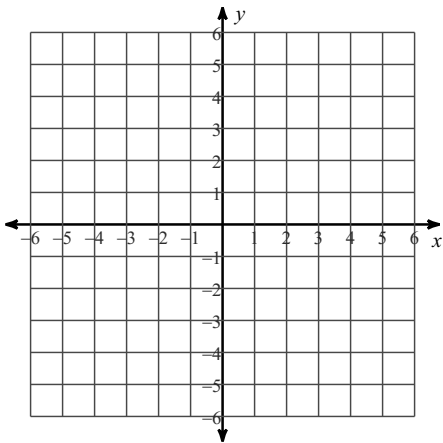
7)  $y > x - 3$



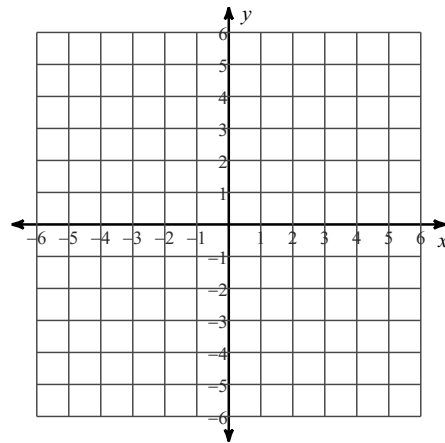
8)  $y \leq -\frac{1}{2}x - 1$



9)  $x + 4y > -8$



10)  $x > 1$



**Solve each equation.**

11)  $-21 = -7x + 4x$

12)  $-3a - 7 = 1 - 5a$

13)  $-6x - 4(4 - 4x) = -96$

14)  $-34 + 7n = -5(5 - 2n)$

15)  $51 = 4(v - 3) - 5(1 - 6v)$

16)  $3(5v + 1) = 5(2v + 2) - 2$

17)  $-3 - 2x = -(2x + 2)$

18)  $3v + 18 = 3(v + 6)$

**Simplify.**

19)  $\sqrt{147}$

20)  $\sqrt{128}$

21)  $2\sqrt{20}$

22)  $5\sqrt{63}$

23)  $\sqrt{25x^2}$

24)  $\sqrt{81n^4}$

**Simplify each expression.**

25)  $(6 - 2v - v^2) + (8 - 8v^2 + 8v)$

26)  $(3 - x^2 + 3x^3 - 4x) - (5 - 3x^2 - 4x^3)$

**Find each product.**

27)  $(7b - 8)(3b + 2)$

28)  $(8x + 6)^2$

29)  $2p(3p^2 + 7p + 7)$

30)  $(2x - 1)(5x^2 - 4x - 2)$

**Factor each completely.**

31)  $5n^2 + 10n$

32)  $2n^2 - 18n$

33)  $n^2 - 16$

34)  $x^2 + 2x - 63$

35)  $x^2 + 10x + 16$

36)  $5n^2 + 10n - 75$

37)  $3m^2 - 18m - 48$

38)  $6x^2 - 24x + 18$

39)  $6n^2 + n - 12$

40)  $10b^2 + 61b + 6$

**Evaluate each function.**

41)  $k(t) = t - 4$ ; Find  $k(10)$

42)  $k(x) = 4x + 2$ ; Find  $k(-9)$

43)  $f(x) = x^2 - 5x$ ; Find  $f(3)$

44)  $f(x) = x^2 + 3x$ ; Find  $f(-5)$

**Simplify. Your answer should only contain positive exponents.**

45)  $2k \cdot 2k^3$

46)  $3x^{-3} \cdot 4x \cdot 3x$

47)  $(x^2)^{-3}$

48)  $(3n^3)^2$

49)  $\frac{4n^4}{2n^2}$

50)  $\frac{2a}{6a^5}$