

## Summer Packet 2019-2020

The purpose of this summer work is to help prepare you for your upcoming math class. The work will tap into your prior knowledge and review past content, concepts, and skills. Our expectation is that you arrive on the first day of school able to demonstrate mastery of the material in this packet. In order to achieve this, please allow yourself plenty of time to work on the problems, use your resources (such as Khan Academy, or the math faculty here at the school during the summer to specifically help with the summer work (July 15<sup>th</sup> – Aug 15<sup>th</sup> on Tues and Wed from 8:30 to 10:30 by appointment)), and work each problem to completion.

Complete the following packet for the summer work. Please make sure all answers are on the answer sheet provided. In order to receive full credit the answers MUST be on the answer sheet. This work will be due on Thursday, September 5<sup>th</sup> and Friday, September 6<sup>th</sup>, and will be 3% of your first quarter grade. 10% will be deducted for each day it is late. Summer work will not be accepted after Sept. 12<sup>th</sup>. Each math problem in the packet will be graded as follows:

Grading: Each problem will be worth 1 point and is graded on correctness, for a total of 56 points. No partial credit will be given.

### Topics Included in the summer packet.

- Solving Two Step Equations
- Finding Slope
- Graphing in Slope Intercept Form
- Distributing and Combining Like Terms
- Simplifying Radicals
- Order of Operations
- Plotting Points

### A note from your Algebra 2 Part 1 teacher:

This packet will help you to sharpen your skills and be ready for the first day of the 2019-2020 school year. If you are struggling with any topics or need a reminder of how to solve any of the problems, Khan Academy is a great resource! These problems shouldn't take too long. HAVE A GREAT SUMMER!!!!

Summer Work Answer Sheet

Your answers must be on the answer sheet in order to receive full credit.

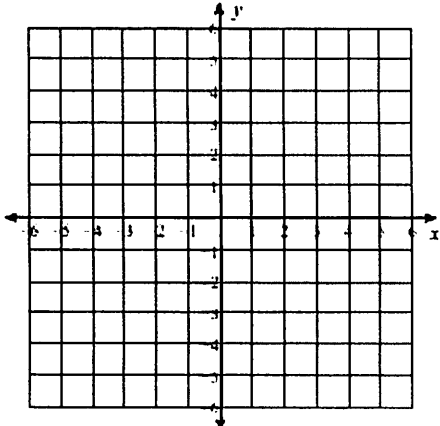
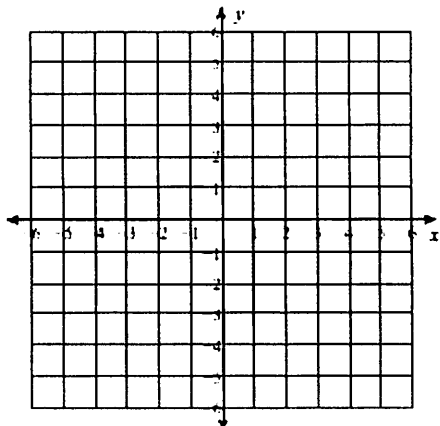
Solving Two Step Equations

1.	2.	3.	4.
5.	6.	7.	8.

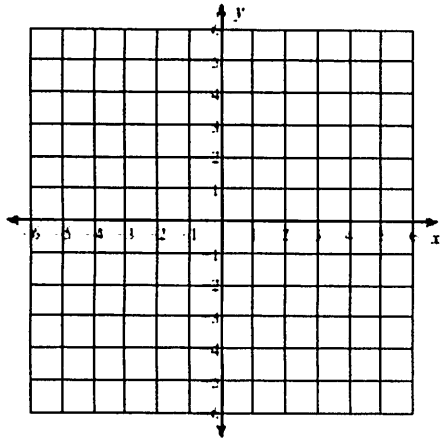
Slope

9.	10.	11.	12.
13.	14.	15.	16.

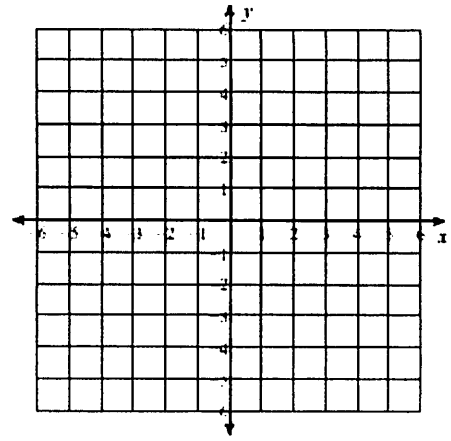
Graphing in Slope Intercept Form

<p>17.</p> 	<p>18.</p> 
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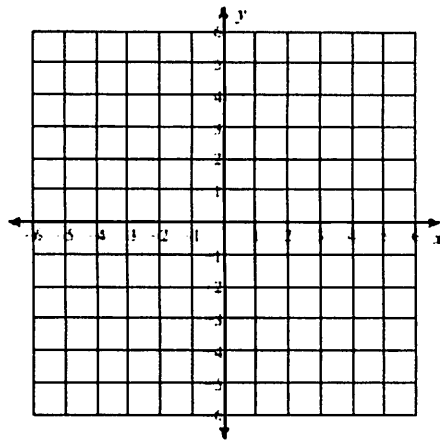
19.



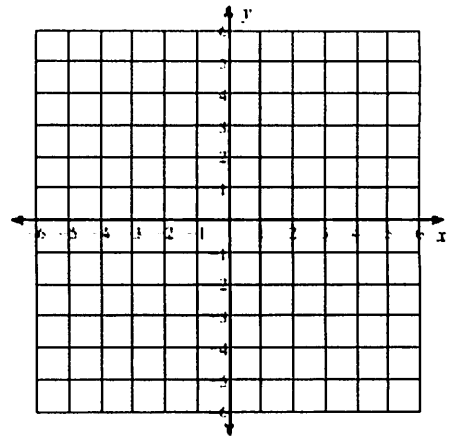
20.



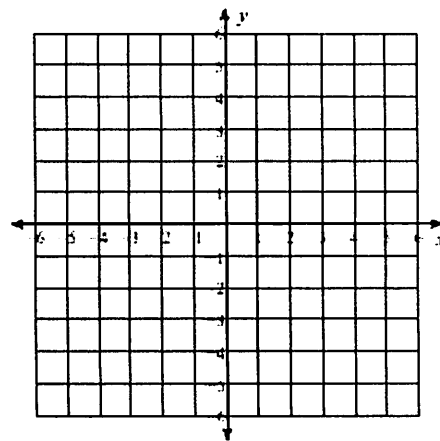
21.



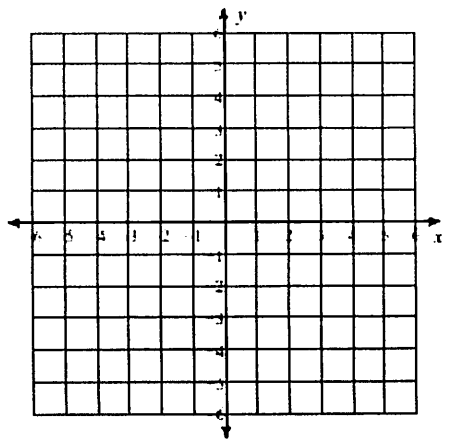
22.



23.



24.



### Combining Like Terms and Distributing

25.	26.	27.	28.
29.	30.	31.	32.

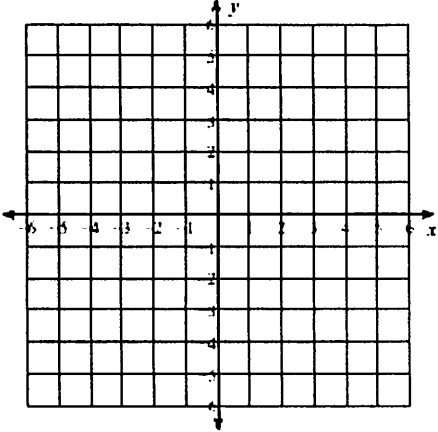
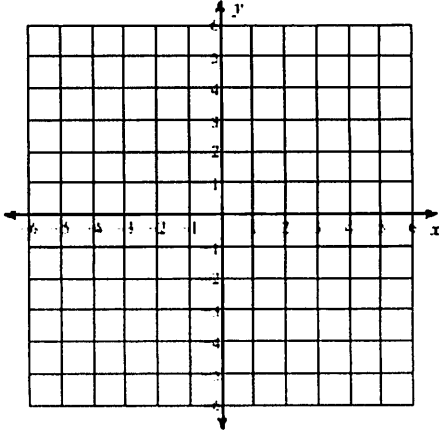
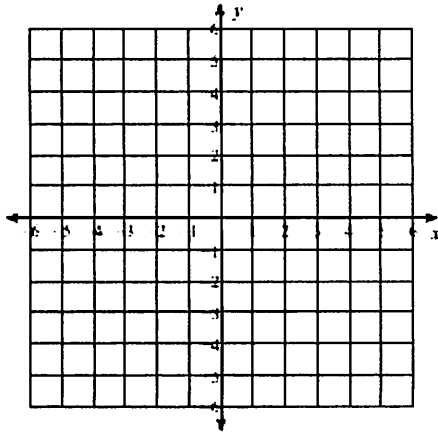
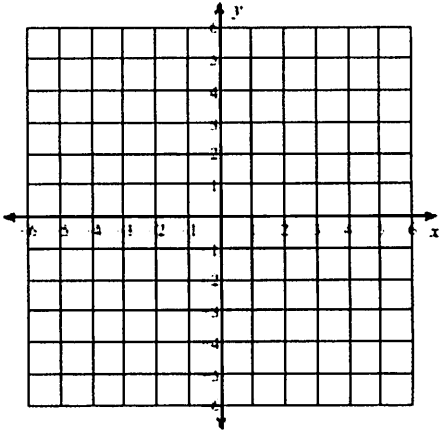
## Simplifying Radicals

33.	34.	35.	36.
37.	38.	39.	40.

## Order of Operations

41.	42.	43.	44.
45.	46.	47.	48.

## Plotting Points

49. 	50. 
51. 	52. 

53.

I (\_\_, \_\_)

J (\_\_, \_\_)

K (\_\_, \_\_)

54.

T (\_\_, \_\_)

U (\_\_, \_\_)

V (\_\_, \_\_)

55.

U (\_\_, \_\_)

T (\_\_, \_\_)

S (\_\_, \_\_)

56.

J (\_\_, \_\_)

K (\_\_, \_\_)

L (\_\_, \_\_)

## Summer Work 2019-2020

**Two Step Equations: Solve each equation.**

1)  $-7 + \frac{x}{4} = -4$

2)  $4 + 2b = 44$

3)  $3a + 3 = -42$

4)  $-24 = -3(k + 3)$

5)  $\frac{x + 8}{4} = -2$

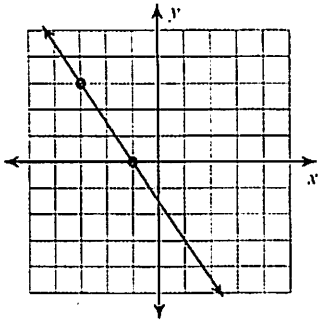
6)  $5(n + 10) = -25$

7)  $3(1 + a) = 15$

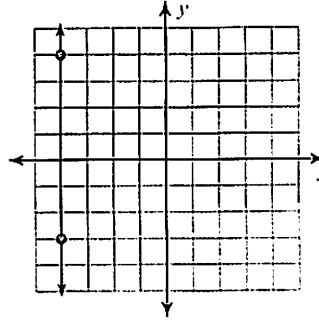
8)  $4 = -2 - x$

**Slope: (rise over run) Find the slope of each line.**

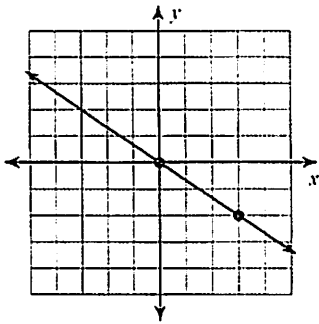
9)



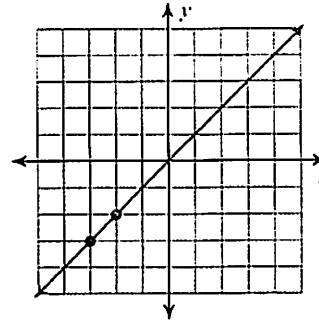
10)



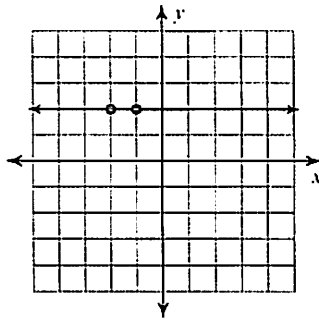
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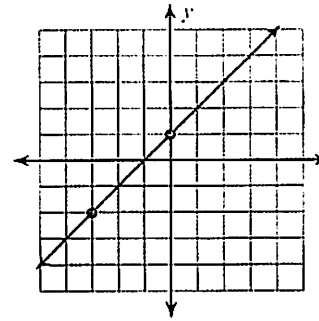
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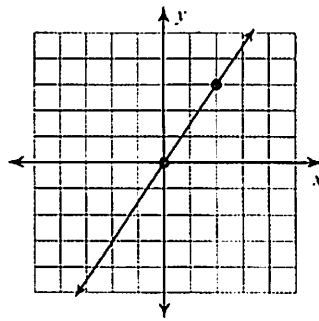
13)



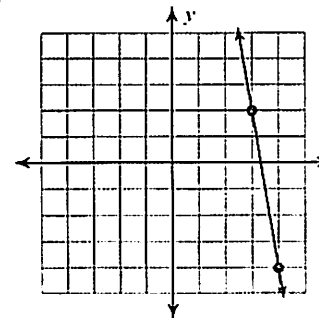
14)



15)

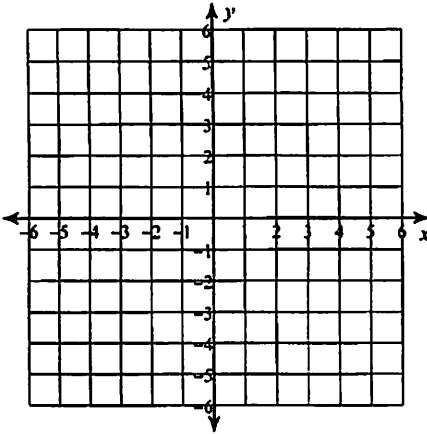


16)

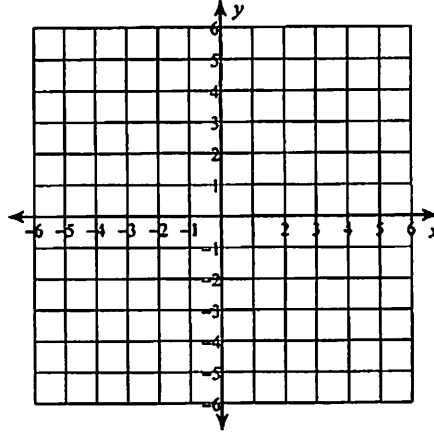


**Graphing in Slope Intercept Form:  $y=mx+b$  Sketch the graph of each line.**

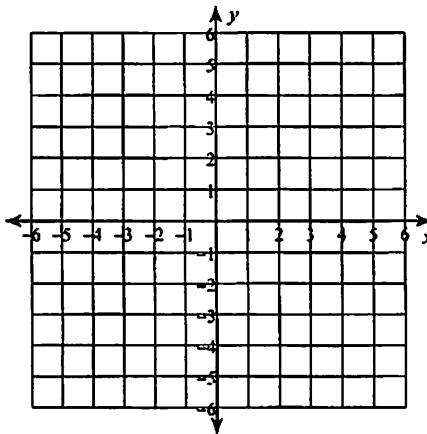
17)  $y=3x+2$



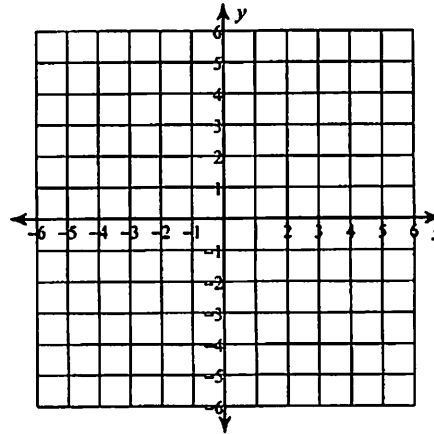
18)  $y=-4x+5$



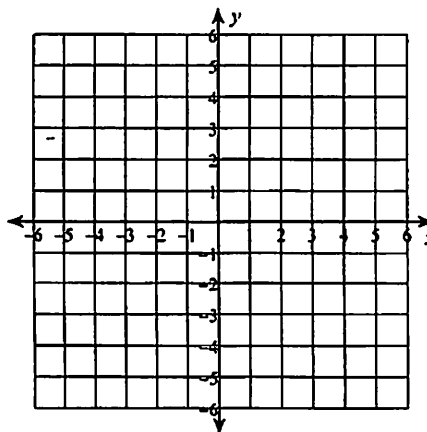
19)  $y=-\frac{1}{2}x-4$



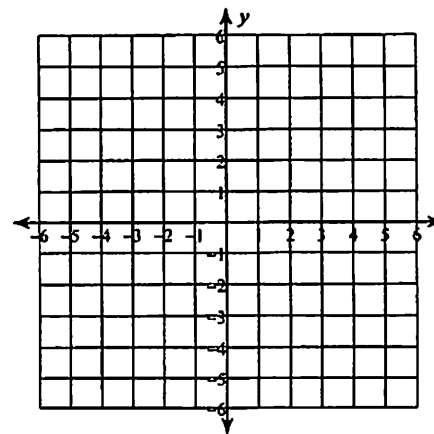
20)  $y=-8x+3$



21)  $y=-2$

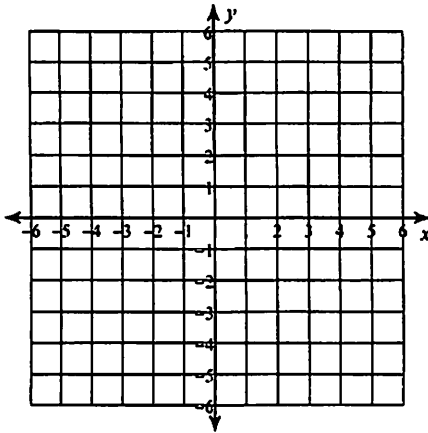


22)  $y=-\frac{3}{2}x-2$

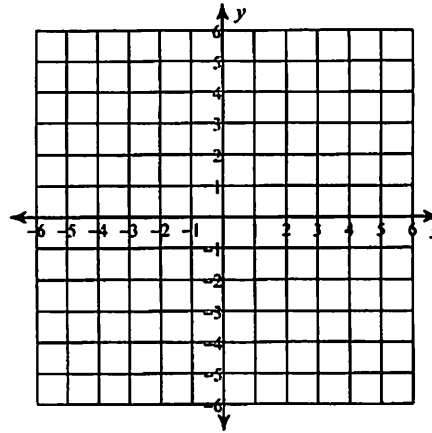




23)  $y = -2x + 4$



24)  $y = x$



**Combining Like Terms/ Distributing: Simplify each expression.**

25)  $7 - 9p - 3p$

26)  $-2n + 5n$

27)  $-5(4p + 7)$

28)  $-4(1 + 3x)$

29)  $-6x + 9(3 - 4x)$

30)  $10 + 2(9 - 2n)$

31)  $7(x - 2) + 2(x - 4)$

32)  $-2(n - 3) + 8(1 + 6n)$

**Simplifying Radicals: Simplify.**

33)  $\sqrt{150}$

34)  $\sqrt{12}$

35)  $\sqrt{28}$

36)  $\sqrt{108}$

37)  $7\sqrt{32}$

38)  $7\sqrt{125}$

39)  $2\sqrt{27}$

40)  $-5\sqrt{72}$

**Order Of Operations: Evaluate each expression.**

$$41) 5 + 5 - \frac{12}{6}$$

$$42) \frac{9 + 15}{6} - 3$$

$$43) \left(\frac{3^2}{3}\right)(6 - 1)$$

$$44) (4)(2) + (5)(6 - 3)$$

$$45) (5 - 1)\left(\frac{9}{2 + 1}\right)$$

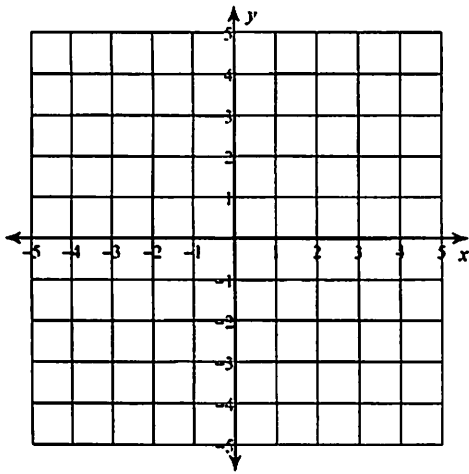
$$46) 6 + 1 - (3^2 - 5)$$

$$47) (6)(4) - \frac{10}{5} - -3$$

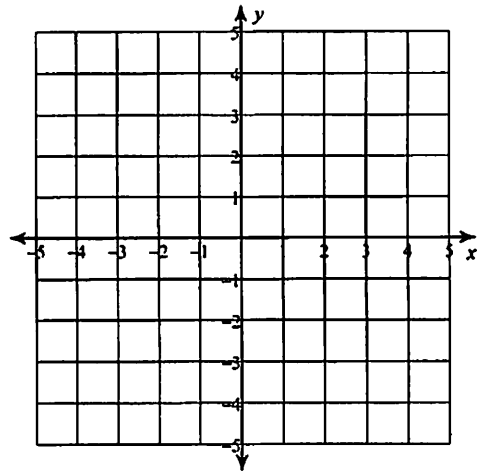
$$48) -\frac{(18)(2)}{-4 - -4 + 6}$$

**Plotting Points: (x, y) Plot each point.**

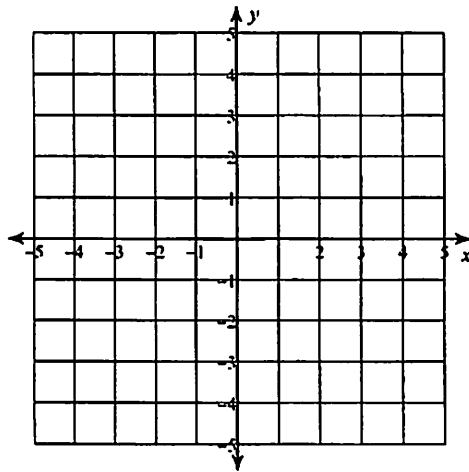
49)  $C(-1, -5)$   $D(-2, -2)$   $E(0, -2)$



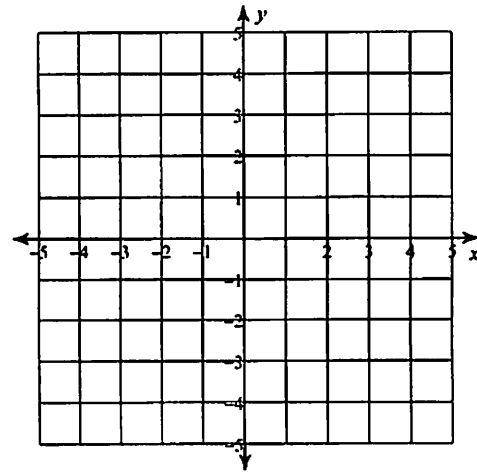
50)  $D(-4, -3)$   $E(-2, -3)$   $F(-1, 4)$



51)  $I(-1, -3)$   $J(-5, -2)$   $K(2, 0)$

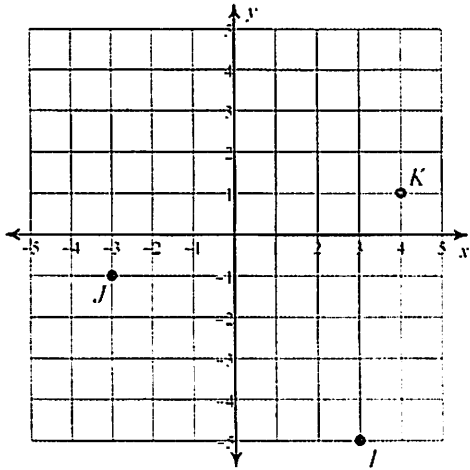


52)  $R(1, 2)$   $S(2, 1)$   $T(-2, 0)$

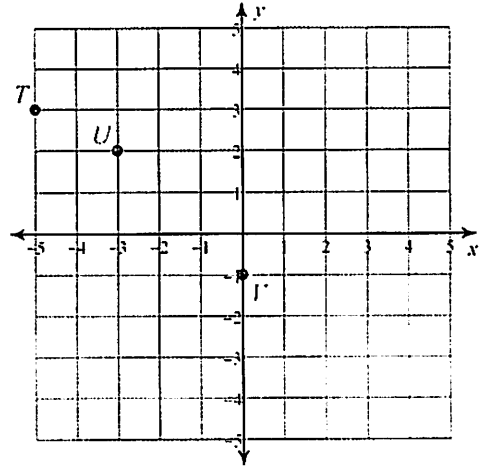


State the coordinates of each point.

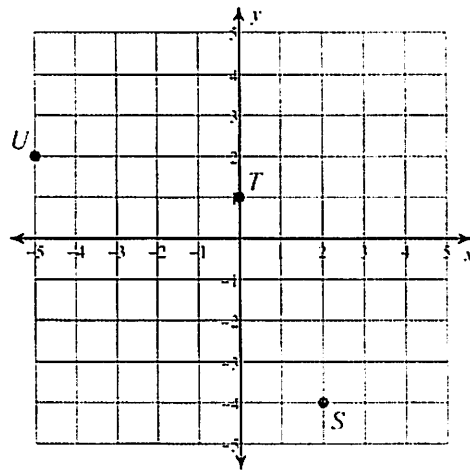
53)



54)



55)



56)

