

Name: \_\_\_\_\_  
Summer Packet ENTERING Alg I

1) Write as a decimal

a)  $\frac{5}{11} =$  \_\_\_\_\_

b)  $\frac{2}{5} =$  \_\_\_\_\_

c)  $\frac{1}{3} =$  \_\_\_\_\_

d)  $\frac{3}{7} =$  \_\_\_\_\_

2) Write as a fraction

a)  $.65 =$  \_\_\_\_\_

b)  $.\overline{6} =$  \_\_\_\_\_

c)  $.2\overline{84} =$  \_\_\_\_\_

d)  $.\overline{6} =$  \_\_\_\_\_

3) **Solve:**  
Write as a percent: 0.148

4) **Solve:**  
Write as a fraction: 83%

5) **Solve:**  
Write as a decimal: 99%

6) **Solve:**  
Write as a fraction: 0.19

7) **Solve:**  
Convert to a decimal:  $\frac{5}{6}$   
  
(Round to 5 decimal places)

8) **Solve:**  
20 speakers for \$8  
(round to 2 decimal places)

9) **Solve**  
Write in scientific notation:  
430000000

10) **Solve**  
Write in decimal notation:  
 $-2.2 \times 10^{12}$

11) **Solve**  
Write in scientific notation:  
0.00000000000034

12) **Solve**  
Write in decimal notation:  
 $-4.3 \times 10^{-12}$

13) **Solve:**  
Which is different?  
  
6.2%, 0.0063,  
 $6.3 \times 10^{-3}$ ,

$$\frac{5}{800}$$

14) **Solve. Explain how you get the answer without using a calculator:**  
 $|46| =$

15) **Solve. Explain how you get the answer without using a calculator:**  
What do you get when you add an odd number and an even number?

16) **Solve. Explain how you get the answer without using a calculator:**  
 $7 - -5 =$

17) **Solve. Explain how you get the answer without using a calculator:**  
 $-1^2$

18) **Solve. Explain how you get the answer without using a calculator:**  
 $24 \div 4 =$

19) **Solve:**  
Is 562863 divisible by 10?  
(Write the rule used)

20) **Solve:**  
Is 80432 divisible by 8?  
(Write the rule used)

21) **Solve:**  
Is 562976 divisible by 3?  
(Write the rule used)

22) **Solve:**  
Is 13697 divisible by 9?  
(Write the rule used)

23) **Solve:**  
Is 168377 divisible by 11?  
*(write the rule used)*

24) **Solve:**  
What is the GCF of 60 and 2?

25) **Solve:**  
What is the LCM of 12 and 6?

26) **Solve:**  
Write the following numbers in order from greatest to least:  
-35, -4, 39  
*(use inequality symbols)*


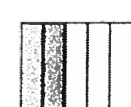
27) **Solve:**  
Write the following numbers in order from greatest to least:  
16, -45, 24  
*(use inequality symbols)*

28) **Solve:**  
Write the following numbers in order from greatest to least:  
-7                      -1                      42  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

29) **Solve:**  
Write the following numbers in order from least to greatest:  
23                      -3                      9  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
43                      7                      23

*(use inequality symbols)*  
30) **Solve:**  
Write the following numbers in order from least to greatest:  
3.56, -1.6, 8.23  
*(use inequality symbols)*

31) **Solve:**  
Write the following numbers in order from least to greatest:  
2.6, 1.8, 0.61  
*(use inequality symbols)*

32) **Solve:**  
Write the following numbers in order from greatest to least:  
 , 42000 , and 

*(use inequality symbols)*

33)

**Solve:**

Write the following numbers in order from greatest to least:

-2400, 2600, and



*(Use inequality symbols)*

**34) Name the set or sets of numbers to which each real number belongs:**

-67

35)

**Name the set or sets of numbers to which each real number belongs:**

$\sqrt{51}$

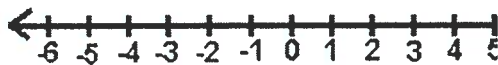
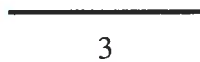
**36) Name the set or sets of numbers to which each real number belongs:**

-8

37)

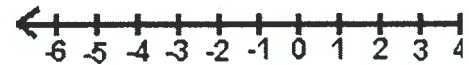
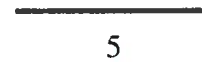
**Graph:**

5



**38) Graph:**

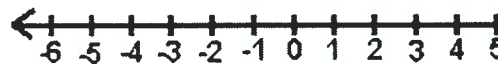
12



39)

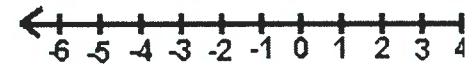
**Graph:**

$-\sqrt{28}$



**40) Graph:**

$-\sqrt{22}$



41)

Solve:

$$7 + 5 \cdot 6$$

42) Solve:

$$3 - 1 + 8$$

43)

Solve:

$$\begin{array}{r} 118 + 2 \\ \hline 7 + 5 \end{array}$$

44) Solve:

$$9 [3^2 - 3(1 + 9)] \div 9 + 6$$

45)

Solve:

$$(4 - 5) \cdot 6$$

46) Name the Property (example:  
associative property of  
multiplication)

$$(1 + -3) \cdot -4 = 1 \cdot -4 + -3$$

47)

Name the Property (example:  
associative property of  
multiplication)

$$2 + 0 = 2$$

48) Name the Property (example:  
associative property of  
multiplication)

$$\text{if } x = 1 \text{ and } -2x - 1 = y \text{ then } -2(1) - 1 = y$$

49)

Name the Property (example:  
associative property of  
multiplication)

$$\text{if } x + 4 = -2 \text{ and } -2 = -x + 3 \text{ then } x + 4 = -x + 3$$

50) Name the Property (example:  
associative property of  
multiplication)

$$\text{if } -3x - 3 = 2 \text{ then } -3x - 3 + 2 = 4$$

51)

Solve:

$$\frac{1}{5} + \frac{3}{5}$$

52) Solve:

$$\frac{3}{5} - \frac{6}{5}$$

53)

Solve:

$$\frac{5}{11} + 11$$

54) Solve:

$$\frac{-3}{4} - 1\frac{1}{10}$$

55)

Solve:

$$\frac{-1}{4} \cdot \frac{1}{2}$$

56) Solve:

$$-6 \div \frac{-1}{2}$$

57)

Solve:

$$5.695 \div 4.245 =$$

58) Approximate (to 2 decimal places):

$$\frac{32}{47}$$

59)

Solve:

Nancy found 31 chairs for \$6. Please help Nancy by figuring out the ratio. (round to 2 decimal places)

60) Solve:

There is a special at the store: \$36 for 7 tulips. Paul is trying to figure out if it's a good deal. Help Paul figure out the unit price (round to 2 decimal places)

61) **Solve:**  
Evaluate:  $-3x + 1 - (2x^2 - 3)$  when  
 $x = 1$ .

62) **Solve:**  
Evaluate:  $3x^2(-2x^2 + x) + 18$   
when  $x = -4$ .

63) **Solve:**  
Is 1 a perfect square?

64) **Solve:**  
Is -1 a perfect square?

65) **Simplify:**  
 $\sqrt{196} =$

66) **Approximate:**  
Between which two whole  
numbers is:  
 $\sqrt{162} =$

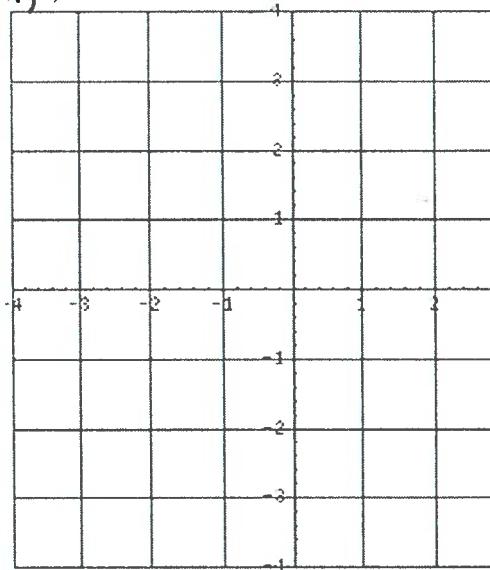
67) **Approximate:**  
Between which two whole numbers  
is:  
 $\sqrt{98} =$

68) **Evaluate:**  
 $(-1)^7 =$

69)

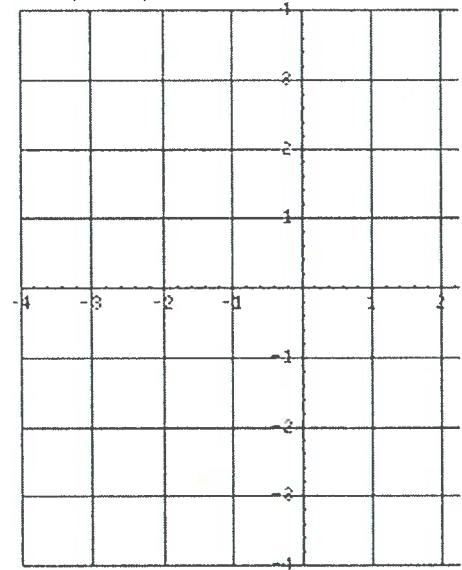
**Plot the points:**

Plot:  $(-3,4)$ ,  $(1,0)$ ,  $(2,-3)$ ,  $(2,-4)$ , and  $(1,0)$



70) **Plot the points:**

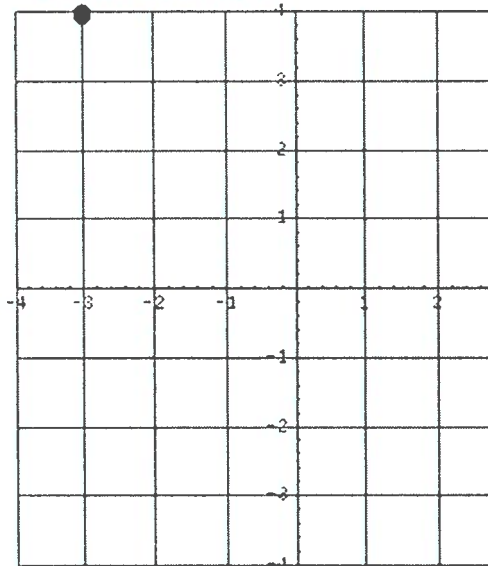
Plot  $(-3,-1)$ ,  $(-4,2)$ ,  $(-4,0)$ ,  $(1,4)$ , and  $(-1,-1)$



71)

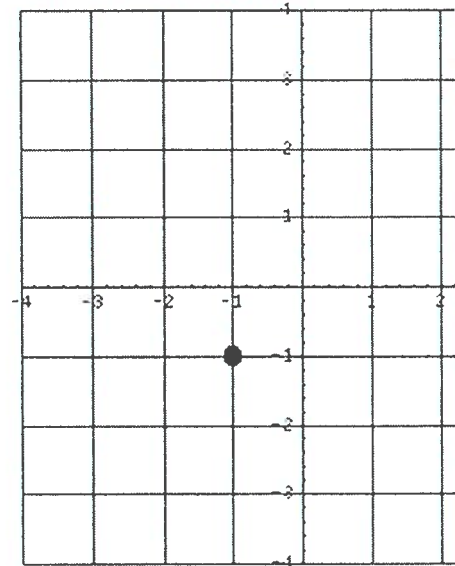
**Solve:**

Write the Coordinates:



72) **Solve:**

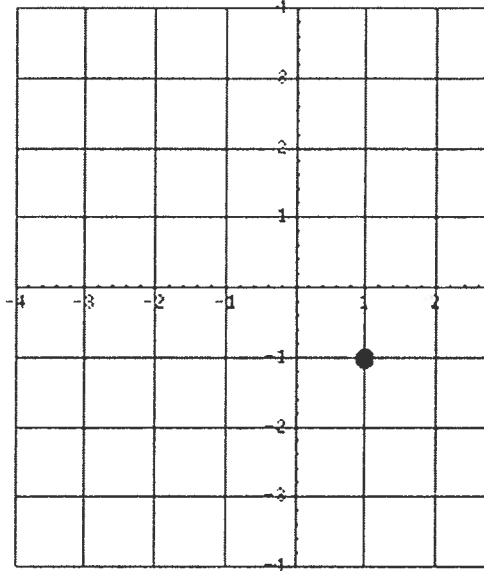
Write the Coordinates:



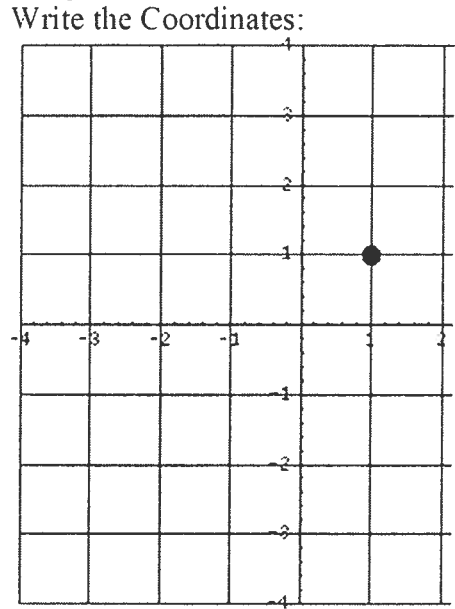


73)

**Solve:**  
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Write the Coordinates:

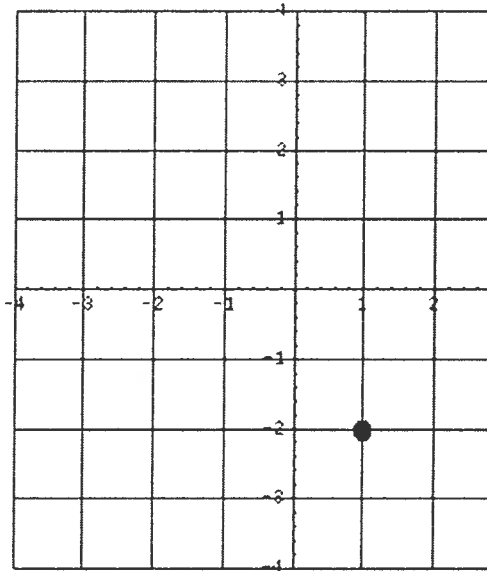


74) **Solve:**  
To print this page, set your options up to print background images.  
Write the Coordinates:

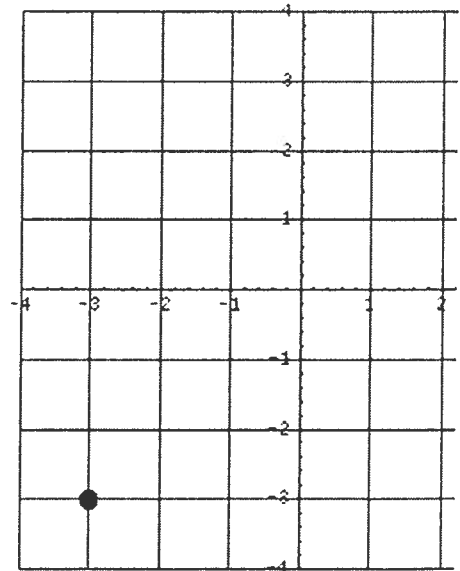


75)

**Which Quadrant does the point lie in?:**



**Which Quadrant does the point lie in?:**



77) Which quadrants do the following point lie in?

a)  $(-2, 2)$

b)  $(4, -2)$

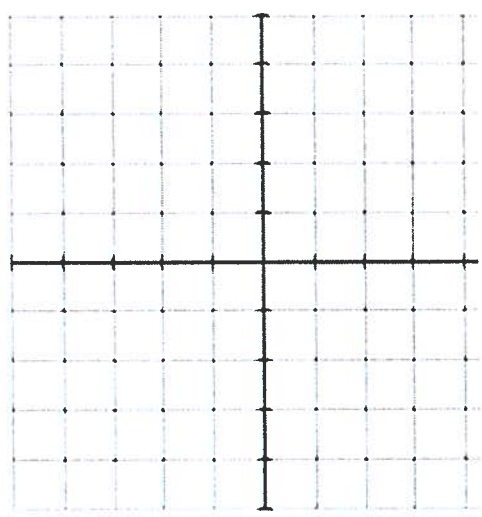
c)  $(-1, -3)$

d)  $(3, 2)$

79)

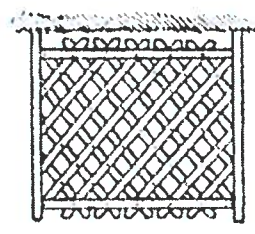
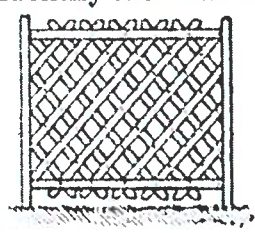
**Solve:**

Reflect the quadrilateral with vertices:  $(-2, 4)$ ,  $(-2, 1)$ ,  $(3, 4)$ , and  $(3, 1)$  over the x-axis.



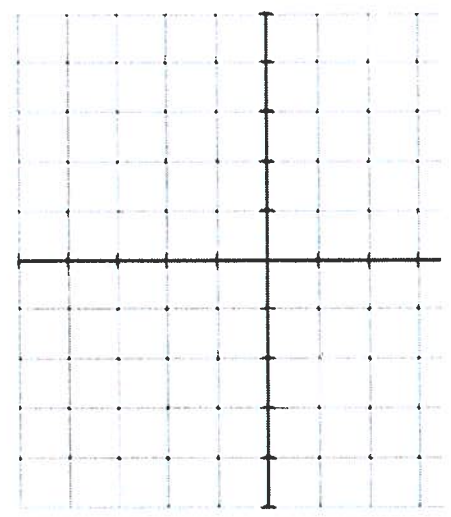
78) Identify the Transformation:

is



80) **Solve:**

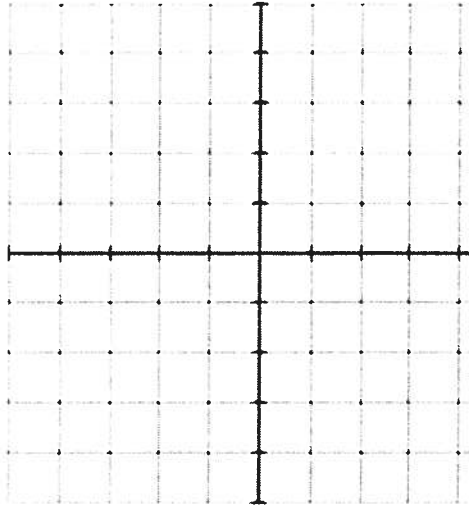
Translate the point defined by  $(-3, 1)$  by moving it right 4 and down 3.



81)

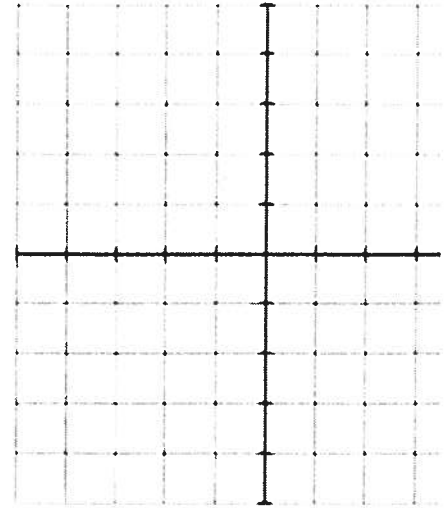
**Solve:**

Rotate the triangle with vertices:  
(4,2), (2,-1), & (-3,-3) by  $90^\circ$   
counterclockwise around the origin.



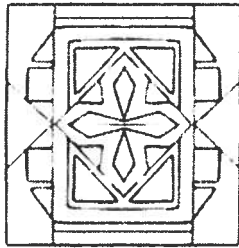
82) **Solve:**

Dilate the quadrilateral with  
vertices: (-2,3), (-2,4), (-4,3), and  
(-4,4) starting from the origin and  
using a scale factor of 4.



83)

**Identify the number of Lines of  
Symmetry (if any):**



84) **Identify the Key Word(s):**

Find the word(s) that mean add:  
Both Bill's dimes and her dimes  
are less than Rachel started with.

85)

**Identify the Key Word(s):**  
Find the word(s) that mean subtract:  
By how many apples did Tim's  
apples decrease?

86) **Identify the Key Word(s):**

Find the word(s) that mean  
multiply:  
Craig's cars times her cars are less  
than Sara started with.

87)

**Identify the Key Word(s):**

Find the word(s) that mean divide:  
At what speed was Larry going when he got a ticket?

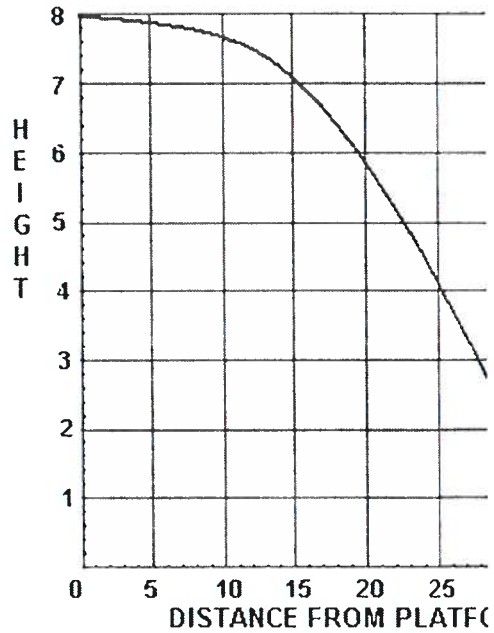
88) **Solve:**

What is the meaning of domain?

89)

**Solve:**

What is the dependent variable in this picture?



90) **Is the relation a function?**

$\{(8,4), (-1,7), (4,-3), (-3,7)\}$

91)

Is the relation a function?

x	y
-2	2
8	-3
-3	9
8	7

93)

Solve for z

x	-6	-4	-2	0	2	4
y	0	3	6	z	12	15

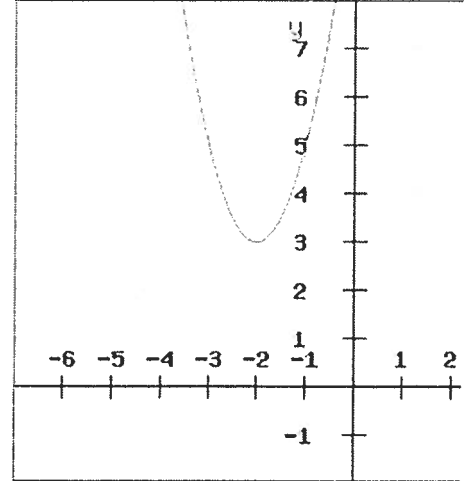
95)

Solve:

Find the domain:

$\{(9,4), (1,-2), (2,8), (7,1)\}$

92) Is the relation a function?



94) Solve for z

x	-6	z	-2	0	2	4
y	0	-1	-2	-3	-4	-5

96) Solve:

What is the domain of:

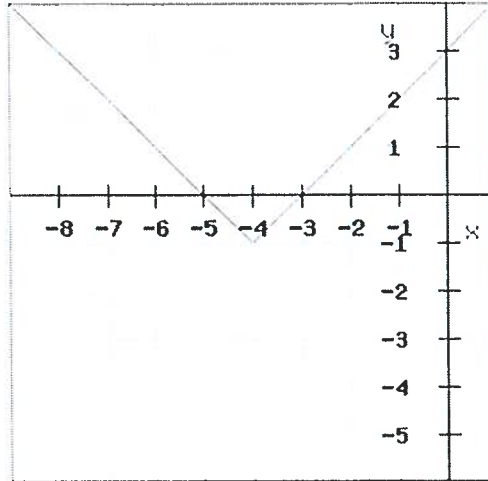
x	y
8	3
-2	9
8	7
3	7

97)

\* \*

Solve:

Find the domain:



(Describe the values of  $x$ )

98) Solve:

Find the range:

$\{(-1,1), (4,-4), (-1,8), (2,2)\}$

99)

Solve:

What is the range of:

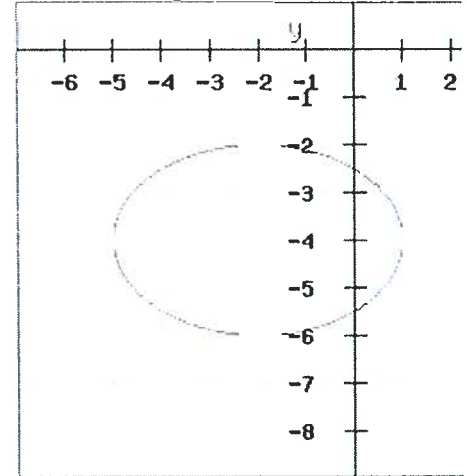
x	y
9	2
-5	5
1	-5
9	-3

100) Solve:

\* \*

Find the range:

(Describe the values of  $y$ )



101)

Simplify:

$$-10e^3 + 10e^2$$

102) Simplify:

$$10m^2s^2 + -2m^2s^2$$

103)

Simplify:

$$-2bwy^2 - b^2wy^2$$

104) Simplify:

$$-z^2 - 5z^2$$

105)

**Simplify:**  
 $(2kr^2)(-2k)$

106) **Simplify:**  
 $(7)(7m^2)$

107)

**Simplify:**  
 $(-3x) + (-2x + 5)$

108) **Simplify:**  
 $(-2x^2 - 4x + 3) + (3x^2 - 5x + 1)$

109)

**Simplify:**  
 $(h^2 - h - 4) - (-h + 4)$

110) **Simplify:**  
 $(-3x^2 - 3x + 2) - (2x^2 + 4x - 1)$

111)

**Simplify:**  
 ~~$(-2x^2 + 3x)(2x^2)$~~

112) **Simplify:**  
 $-5(4x^2 + 4x + 1)$

113)

**Solve for x:**  
 $x - 4 = -9$

114) **Solve for x:**  
 $x - 8 = -8$

115)

**Solve for x:**  
 $x + 9 = -5$

116) **Solve for x:**  
 $x + 9 = 5$

117) Solve

$$\frac{x}{2} + \frac{3}{8} = 1$$

118) Solve

$$6x - 8 = 2 + 9x - 1$$

119) Solve

$$-x + 5 + 6x = 1 - 5x + 3$$

120) Solve

$$4(2x - 3) = 3 + 8x - 11$$

