Name _____

Algebraic Equations/Number Sentences

Classwork I

Multiplication can be represented by:
× * **4b** (a number next to variable)
Division can be represented by:
÷ or /

Identify the part of each equation below that is indicated by an arrow and write your answer on the line below each problem.

1. 25 * **y** = 100 ↑

_____

2. 7 + 9 **=** 4 + 12 ↑

_____

3. 12 **/** 4 = 3 ↑

_____

Identify each item below as either an expression or an equation. Circle your answer for each problem.

4. 9 + t

expression
equation

5. 16 = 4 + 12

expression
equation

6. 18 **/** 6

expression
equation

For any expression above, what would be needed to turn the expression into an equation?

_____

Identify each equation below as either true (balanced) or false (unbalanced). Circle your answer for each problem. Show work below each problem that proves equation is true or false.

7. 12 – 5 = 6

true
false

8. 5 x 2 = 5 + 5

true
false

9. 7 + 2 = 2 x 7

true
false

Solve each algebraic equation below for k.

10. 18 – k = 5

k = _____

11. k x 5 = 20

k = _____

12. 6 + 8 = 2 * k

k = _____

Algebraic Equations/Number Sentences
Homework I

Multiplication can be represented by:
× * **4b** (a number next to variable)
Division can be represented by:
÷ or /

Identify the part of each equation below that is indicated by an arrow and write your answer on the line below each problem.

13. 25 - p **=** 18 ↑ _____

14. n = 9 **x** 5 ↑ _____

15. 9 + **k** = 30/3 ↑ _____

Identify each item below as either an expression or an equation. Circle your answer for each problem.

16. 8 * 2 = 8 + 8
expression
equation

17. 10^2
expression
equation

18. 3 = 24/w
expression
equation

Choose an expression above and turn that expression into an equation. Write equation below.

_____

Identify each equation below as either true (balanced) or false (unbalanced). Circle your answer for each problem. Show work below each problem that proves equation is true or false.

19. 8 – 2 = 19 - 13
true
false

20. 6 x 2 = 2 + 2 + 2
true
false

21. 5 + 6 - 3 = 2 x 4
true
false

Solve each algebraic equation below for w.

22. 1 + w = 14
w = _____

23. w - 8 = 21
w = _____

24. 18 = 6 * w
w = _____

Name _____

Algebraic Equations/Number Sentences
Classwork II

Evaluate each expression below when p = 6.

25. 5 x p Solution: _____

26. p + 3 - 5 Solution: _____

27. (p * 4) + p Solution: _____

In order for the algebraic equations below to be true, what whole number must replace the variable in each equation?

28. 8 + c = 11 + 7
c = _____

29. q * 5 = 30 + 5
q = _____

30. 12 – t = 6 + 6
t = _____

31. Write 3 algebraic equations below that are true when h = 4?

_____ _____ _____

Algebraic Equations/Number Sentences
Homework II

Evaluate each expression below when k = 8.

32. (k / 2) + 6 Solution: _____

33. 3 * k Solution: _____

34. (9 – k) + (26 – k) Solution: _____

In order for the algebraic equations below to be true, what whole number must replace the variables in each equation?

35. j x j = 20 + 5
j = _____

36. 32 - 7 = 25 / f
f = _____

37. u + 36 = 7 x 7
u = _____

38. Write 3 expressions below that equal 40 when w = 7?

_____ _____ _____

Name _____
Problem Solving
Classwork I

39. Choose the algebraic equation that represents the numbers/words below. Circle the correct response.

    a. Fifteen is the same value as a number plus 8.

    15 + 8 = j 15 = j + 8 1 + 5 = 8 15 = j - 8

    b. Thirty plus 5 is seven times a number.

    30 + 5 = 7 + g 30 = 5 x 7 30 x 5 = 7g 30 + 5 = 7g

    c. A number subtracted by 7 gives you 6.

    n - 7 = 6 7 - n = 6 n = 7 – 6 n - 6 = 7

Circle the algebraic equation or equations that would correctly organize the important information in each of the application/word problems below.

40. KAYLEE exercised for 3 days this week. She ran for 35 minutes on Monday, 24 minutes on Tuesday, and 38 minutes on Thursday. How much time did she spend running this week?

    a. 3 + 35 + 24 + 38 = t b. 35 + 24 = 38 + t

    c. t = 35 + 24 + 38 d. 35 + 24 + 38 = t

41. QUIGLEE had soccer camp 3 hours a day for 2 weeks this past summer. He also went on a trip to Massachusetts for 2 weeks. How many total hours did QUIGLEE spend at soccer camp this summer?

    a. 3 + 7 = h b. 3 x 14 = h c. h = 14 + 14 + 14

    d. 3 x 2 = h e. 3 x 4 = h

K.E.Y.S.

Read the word problems below, underline the important information, and create an algebraic equation to solve each one.

42a. KAYLEE is buying a birthday present for QUIGLEE. She has $40 in her wallet. The gift costs $7 and she gives the cashier a 20 dollar bill. How much money will the cashier give back to her?

Algebraic Equation: _____

43a. QUIGLEE is getting ready for his birthday party. He has 12 guests coming to the party and each guest will receive 3 party favors. How many party favors does QUIGLEE need to buy?

Algebraic Equation: _____

K.E.**Y.S.**

Use the algebraic equations you created above to solve each problem. Show all work neatly below each problem.

42b. KAYLEE is buying a birthday present for QUIGLEE. She has $40 in her wallet. The gift costs $7 and she gives the cashier a 20 dollar bill. How much money will the cashier give back to her?

Solution:_____

43b. QUIGLEE is getting ready for his birthday party. He has 12 guests coming to the party and each guest will receive 3 party favors. How many party favors does QUIGLEE need to buy?

Solution:_____

Problem Solving
Homework I

44. Choose the algebraic equation that represents the numbers/words below. Circle the correct response.

    a. Seven is 9 less than a number.

    7 - 9 = p 7 = 9 - p 7 = 9 + p 7 = p - 9

    b. A number divided by 5 gives you 6.

    q / 6 = 5 q / 5 = 6 q x 5 = 6 q5 = 6

    c. A number subtracted by 4 is the same value as 15

    15 = 4 - m m = 15 - 4 m - 4 = 15 m - 15 = 4

Circle the algebraic equation or equations that would correctly organize the important information in each of the application/word problems below.

45. KAYLEE received her scores on 3 math quizzes. On Quiz #1 she scored 86%. On Quiz #2 she scored 78%. KAYLEE scored 94% on her 3rd quiz. What is the difference between her highest and lowest quiz scores?

    a. d = 94 - 3 b. 86 + 78 + 94 = d

    c. d = 94 - 78 d. 94 – 86 = d

46. QUIGLEE has a bag of 16 lollipops. He wants to share them equally between himself and 2 friends. How many lollipops will they each get?

    a. 16/2 = c b. 16 x 2 = c c. c = 16 + 16 + 16

    d. 16 + 2 = c e. c = 16/3

K.E.Y.S.

Read the word problems below, underline the important information, and create an algebraic equation to solve each one.

47a. KAYLEE had $50 is her savings account. She worked for 7 hours and was paid $4 per hour (each hour). KAYLEE decided to put the money she was paid into her savings account. What is the total amount of money in her savings account now?

Algebraic Equation: _____

48a. QUIGLEE bought a new pair of running shoes for $132. KAYLEE saw the same pair of running shoes on sale at Target for $98. How much money would QUIGLEE have saved if he had gone to Target?

Algebraic Equation: _____

K.E.**Y.S.**

Use the algebraic equations you created above to solve each problem. Show all work neatly below each problem.

47b. KAYLEE had $50 is her savings account. She worked for 7 hours and was paid $4 per hour (each hour). KAYLEE decided to put the money she was paid into her savings account. What is the total amount of money in her savings account now?

Solution:_____

48b. QUIGLEE bought a new pair of running shoes for $132. KAYLEE saw the same pair of running shoes on sale at Target for $98. How much money would QUIGLEE have saved if he had gone to Target?

Solution:_____

Name _____
Problem Solving
Classwork II

Look at the word problems below and the algebraic equation that is given to solve each one. Create another algebraic equation for each problem that can also be used to solve the problem.

49. There are 56 children going to summer camp. One van holds 7 children. How many vans will be needed to bring all children to summer camp? **ALGEBRAIC EQUATION: 56 ÷ 7 = v**

Choose (circle) **one** item in each column to create a second, complete algebraic equation that could be used to solve the problem.				
7	**+**	**7**	**<**	**7**
56	**-**	**56**	**=**	**56**
n	*****	**n**	**>**	
	÷			

Algebraic Equation you created: _____

50. You are trying to find the total hours in one week. Your friend says there are 12 hours in half of a day. How can you find the total hours in one week? **ALGEBRAIC EQUATION: h = 24 + 24 + 24 + 24 + 24 +24 + 24**

Choose (circle) **one** item in each column to create a second, complete algebraic equation that could be used to solve the problem.				
12	**+**	**12**	**<**	**12**
24	**-**	**24**	**=**	**24**
r	*****	**r**	**>**	**r**
7	**÷**	**7**		**168**
14		**14**		**84**

Algebraic Equation you created: _____

51. Use everything you learned about problem solving (K.E.Y.S) to solve the problem below.

Your teacher has a sheet of stickers.

- *She/he gives QUIGLEE 6 stickers.*
- *She/he gives KAYLEE 4 more than QUIGLEE.*
- *Your teacher gives you 5 times (5x) as many stickers as KAYLEE.*

Your teacher now has 12 stickers left on the sheet.

A. How many stickers did you and KAYLEE each receive? Show or explain how you arrived at each answer in the box below.

Solution:_____

_____

B. How many stickers were on the sheet before any were given away?

Solution:_____

_____

Problem Solving
Homework II

52. Look at the word problems below (Part A & B) and create an algebraic equation that you could use to solve each problem. Then use your algebraic equation to find solutions to both parts.

A. There are 12 packages of white board markers in a large box. Each package contains 4 markers. Each package costs $3. How many markers are in one large box? Show all your work in the boxes.

Choose (circle) **one** item in each column to create an algebraic equation.				
12	**+**	**12**	**<**	**12**
4	**-**	**4**	**=**	**4**
3	*****	**3**	**>**	**3**
g	**÷**	**g**		**g**

Algebraic Equation (Part A): _____

Solution to Part A:_____

B. Your teacher ordered 5 large boxes of markers for the classroom. How many markers were ordered altogether? Create your own algebraic equation for this problem on the line below.

Algebraic Equation (Part B): _____

Solution to Part B:_____

53. Use everything you learned about problem solving (K.E.Y.S) to solve the problem below.

KAYLEE is using her birthday money to buy items at the mall.

- *She spends $8 on a new science fiction book.*
- *She buys a new shirt that costs twice as much as her book.*
- *She then buys a pair of sunglasses that costs half as much as the combined cost of the book and the new shirt.*

After buying these items, KAYLEE has $11 dollars remaining.

A. How much did KAYLEE pay for the new shirt and the pair of sunglasses? Show or explain how you arrived at each answer in the box below.

Solution:_____

_____

B. How much total birthday money did she have before going shopping?

Solution:_____

_____

Name _____

Place Value/Number Sense Through the Millions

Classwork I

54. Is the number 49 even or odd? Explain your answer.

_____

_____

_____

_____

55. Circle all of the even numbers in the list below:

55 23 26 103 1220 994

56. How many ten dollar bills and one dollar bills would you need to make the following numbers. **NOTE: Use the smallest amount of bills possible.**

a. 48 ten dollar bills _____ one dollar bills_____

b. 90 ten dollar bills _____ one dollar bills_____

c. 7 ten dollar bills _____ one dollar bills_____

d. 100 ten dollar bills _____ one dollar bills_____

57. Use the place value information to write each number in standard form.

a. 7 hundreds and 5 tens Standard Form: _____

b. eight ones and 9 tens Standard Form: _____

c. 5 ones and six hundreds Standard Form: _____

58. Fill in the missing part of each statement below.

a. 1 hundred is 10 times as much as 1 _____.

b. 1 thousand is _____ times as much as one hundred.

c. 1 million is ten times as much as one _____.

59. Use the place value chart below to answer questions a through d.
NOTE: Tally marks represent how many of each place value we have.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

a. What is this number in standard or numeric form? _____

b. If you have 7 more ones, what will the new number be? Use the place value chart above to show your work.

New number in standard form = _____

c. Look at the place value chart above. If you keep the tally marks in the ten thousands place and erase the remaining tally marks in the other place values, what number would you have?

_____

d. What number would be 10 times larger than the number you wrote in part c?

_____

60. Complete the following equations/number sentences.

a. 10 x 6 tens = _____ tens = _____ hundreds

b. 10 x 10 tens = _____ tens = _____ hundreds = _____thousands

c. 20 x 10 tens = _____ tens = _____ hundreds = _____ thousands

Place Value/Number Sense Through the Millions
Homework I

61. Is the number 58 even or odd? Explain your answer.

_____

_____

_____

_____

62. Circle all of the odd numbers in the list below:

121 2210 27 63 374 32 1,135

63. How many ten dollar bills and one dollar bills would you need to make the following numbers. **NOTE: Use the smallest amount of bills possible.**

a. 35 ten dollar bills _____ one dollar bills_____

b. 80 ten dollar bills _____ one dollar bills_____

c. 9 ten dollar bills _____ one dollar bills_____

d. 120 ten dollar bills _____ one dollar bills_____

64. Use the place value information to write each number in standard form.

a. 9 hundreds and 3 tens Standard Form: _____

b. 10 tens and six ones Standard Form: _____

c. 20 ones and four hundreds Standard Form: _____

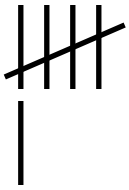
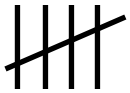
65. Fill in the missing part of each statement below.

a. 2 thousand is _____ times as much as 1 hundred.

b. 1 ten thousand is ten times as much as one _____.

c. 1 million is _____ times as much as 1 thousand.

66. Use the place value chart below to answer questions a through d.
NOTE: Tally marks represent how many of each place value we have.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
						

a. What is this number in standard or numeric form? _____

b. If you have 6 more hundreds, what will the new number be? Use the place value chart above to show your work.

New number in standard form = _____

c. Look at the place value chart above. If you keep the tally marks in the millions place and erase the remaining tally marks in the other place values, what number would you have?

_____

d. What number would be 10 times larger than the number you wrote in part c?

_____

67. Complete the following equations/number sentences.

a. 10 x 8 tens = _____ tens = _____ hundreds

b. 10 x 5 hundreds = _____ hundreds = _____ thousands

c. 10 x 10 hundreds = _____ hundreds = _____ thousands = _____ ten thousands

Place Value/Number Sense Through the Millions
Classwork II

Place Value:
Location of a digit
Value:
How much a digit is worth

For each problem below, circle the correct word for part A and number for part B to complete the statements.

68. The number 453 multiplied by 10

a. The number 5 in the resulting product is in the _____ place.

ones tens hundreds thousands ten thousands

b. The value of this digit in the resulting product is _____.

5 50 500 5,000 50,000

69. The number 28 multiplied by 10

a. The number 8 in the resulting product is in the _____ place.

ones tens hundreds thousands ten thousands

b. The value of this digit in the resulting product is _____.

8 80 800 8,000 80,000

70. Fill in the blank with the number that makes each statement true.

a. 9,560 is _____ more than 9,460

b. 87,004 is _____ more than 77,004

c. 410,456 is _____ less than 410,476

d. You would need to add _____ to 63,468 to get 64,468

Place Value/Number Sense Through the Millions
Homework II

Place Value:
Location of a digit
Value:
How much a digit is worth

For each problem below, circle the correct word for part A and number for part B to complete the statements.

71. The number 1,429 multiplied by 10

a. The numeral 2 in the resulting product is in the _____ place.

ones tens hundreds thousands ten thousands

b. The value of this digit in the resulting product is _____.

2 20 200 2,000 20,000

72. The number 93 multiplied by 100

a. The number 9 in the resulting product is in the _____ place.

ones tens hundreds thousands ten thousands

b. The value of this digit in the resulting product is _____.

9 90 900 9,000 90,000

73. Fill in the blank with the number that makes each statement true.

a. 856 is _____ less than 866

b. You would need to subtract _____ from 7,034 to equal 6,934

c. 2,180,243 is _____ more than 2,080,243

d. You would need to add _____ to 98,321 to equal 98,421

Name _____
Read and Represent Multi-Digit Numbers
Classwork I

74. Use numbers and words on the lines below each number to group the following numbers into ones, tens, hundreds, thousands, ten-thousands, hundred- thousands, and millions:
Example: 678 is 6 hundreds, 7 tens, 8 ones

a. 593

_____
_____
_____
_____

b. 9,617

_____
_____
_____
_____

c. 14,833

_____
_____
_____
_____

d. 4,300,710

_____
_____
_____
_____

e. 106,905

_____
_____
_____
_____

f. 2,897,920

_____
_____
_____
_____

75. Write the following numbers in words (word form):

a. 827

_____

b. 104,439

_____

_____

c. 2,430,288

_____

_____

76. Write the number in standard form for the following:

a. 7 thousands, 5 hundreds, 4 tens, 8 ones _____

b. 5 thousands, 3 hundreds, 2 ones_____

c. 3 hundred thousands, 9 ones _____

Read and Represent Multi-Digit Numbers
Homework I

77. Use numbers and words on the lines below each number to group the following numbers into ones, tens, hundreds, thousands, ten-thousands, hundred- thousands, and millions:
Example: 678 is 6 hundreds, 7 tens, 8 ones

a. 865

_____
_____
_____
_____

b. 19,325

_____
_____
_____
_____

c. 8,401

_____
_____
_____
_____

d. 5,354,980

_____
_____
_____
_____

e. 543,008

_____
_____
_____
_____

f. 4,000,406

_____
_____
_____
_____

78. Write the following numbers in words:

a. 11,902

_____

_____

b. 7,403,210

_____

_____

c. 3,999,349

_____

_____

79. Write the number in standard form for the following:

a. 2 million, 3 ten thousands, 9 one thousands, 8 tens, 4 ones _____

b. 6 hundred thousands, 2 tens, 9 ones _____

Read and Represent Multi-Digit Numbers
Classwork II

80. Write the following numbers in expanded form: NOTE: You do not have to use all of the boxes.

a. 927 ☐ + ☐ + ☐ + ☐

b. 1204 ☐ + ☐ + ☐ + ☐

81. If you have several dimes, which would be the best way to count them? Circle the correct answer below.

a. 5,10,15,20,25

b. 10, 20, 30, 40

c. 25, 50, 75, 100,125

82. Every Saturday a drawing is held at the ball park. Every 50th ticket receives a free T-shirt. The last three winners held tickets 27,702; 27,752; 27,802. What would be the next winning ticket number? _____ Why? _____
_____

83. Joe said that the value of the **7** in the number 1734 is different from the value of **7** in the number 1874. Is he right? _____
Explain your answer _____
_____

84. Write the numbers in standard form.

a. 6,000 + 600 + 40 + 6 = _____

b. 200,000 + 10,000 + 1,000 + 900 + 9 = _____

c. 5,000,000 + 4,000 + 500 + 90 + 5 = _____

d. 8,000,000 + 400,000 + 400 + 40 + 4 = _____

e. 300,000 + 90,000 + 2,000 + 800 + 80 + 8 = _____

Read and Represent Multi-Digit Numbers
Homework II

85. Write the following numbers in expanded form:

a. 439,450 _____ +_____ +_____ + _____ +_____

b. 1,309,006 _____ +_____ +_____ +_____

86. Robert said that the value of the 8 in the number 8003 is different from the value of 8 in the number 9890. Is he right? _____ Explain your answer _____
_____
_____

87. Write the numbers in standard form.

a. 700,000 + 900 + 30 = _____

b. 4,000,000 + 30,000 + 800 + 90 + 3 = _____

c. 600,000 + 70,000 + 9,000 + 5 = _____

d. 80,000,000 + 50,000 + 4,000 + 10 = _____

e. 30,000 + 900 + 8 = _____

88. The number below is written in word form. Represent this number in three additional ways.

Four million six hundred five thousand seven hundred twenty

a. Standard Form: _____

b. Number and Word Form:

_____

_____

c. Expanded Form:

_____

89. Why do we use commas when writing number in standard form?

_____

_____

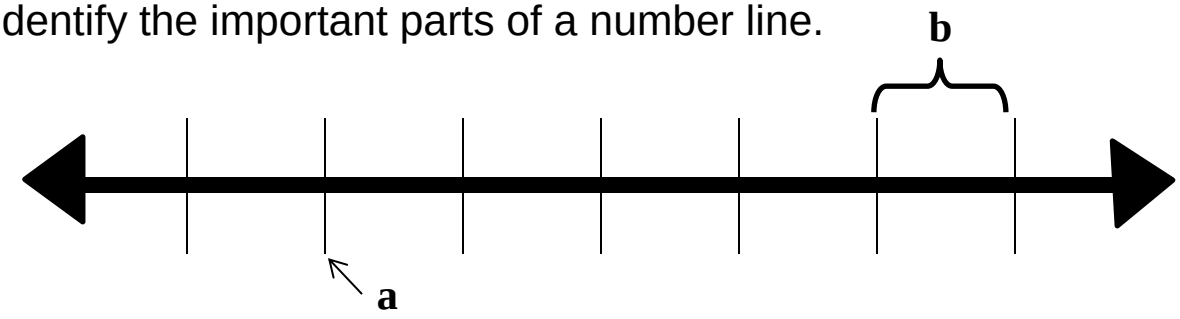
_____

Name _____

Analyze Number Lines Using Number Sense

Classwork I

90. Identify the important parts of a number line.



a. _____

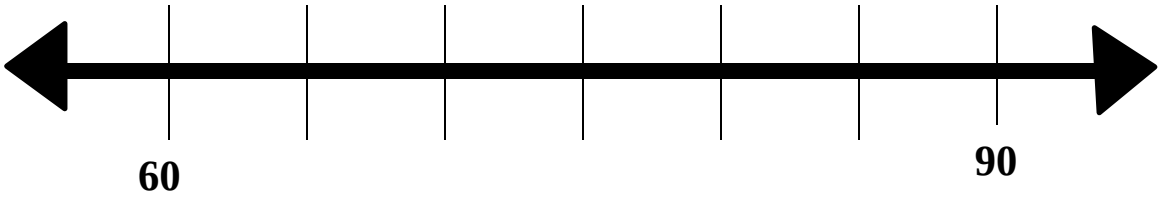
b. _____

Why is a number line useful? _____

_____

_____

91. Use the number line below to find the number that is exactly halfway between 60 and 90.



a. Number halfway between = _____

b. What scale did you use to help you with this problem?

_____

c. Find the following using the number line shown above.

Minimum: _____ Maximum: _____

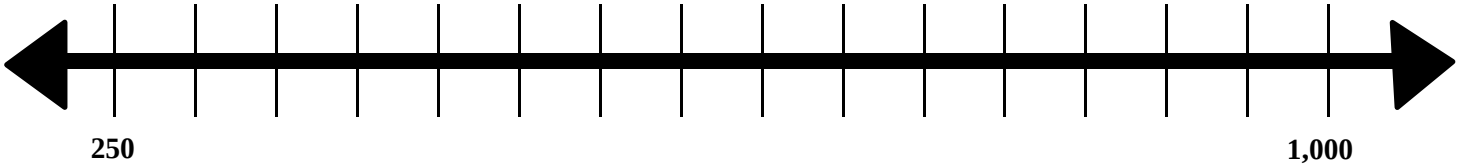
Range: _____

92. QUIGLEE's aunt is 45 years old. His grandmother is 85 years old. QUIGLEE has a cousin whose birthday is today. Her age will be exactly between the ages of QUIGLEE's aunt and grandmother. How old is QUIGLEE's cousin today? Use the number line below to show your work.

Solution:_____

Analyze Number Lines Using Number Sense
Homework I

93. Use the number line below to find the number that is exactly halfway between 250 and 1,000.



a. Number halfway between = _____

b. What scale did you use to help you with this problem?

_____

c. Find the following using the number line shown above.

Minimum: _____ Maximum: _____

Range: _____

94. KAYLEE made $360 dollars in June. She made $120 July. KAYLEE just received her August paycheck. The amount shown on this check is exactly between the amounts on her June and July checks. She already had $450 in her bank account. How much does she now have in her account after depositing her June, July and August paychecks?

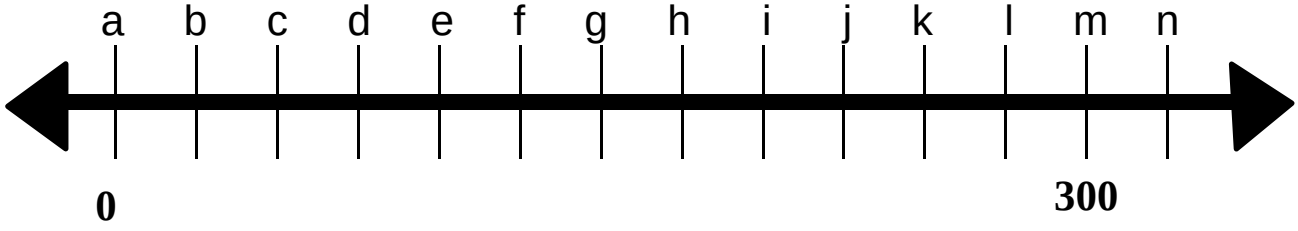
Use the number line above and show additional work in this box.

Solution:_____

Analyze Number Lines Using Number Sense
Classwork II

Using the numbers given, determine the interval on each number line. Use this interval to find the number that is asked for.

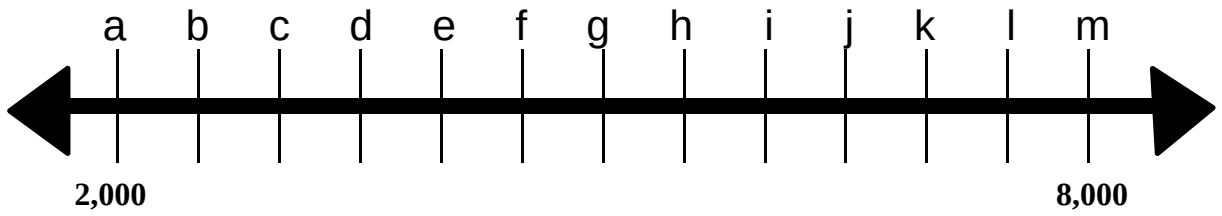
95. Label the tick mark on the number line below that represents the number 200.



a. The tick mark that represents the number 200 is _____.

b. What interval did you use to solve this problem? _____

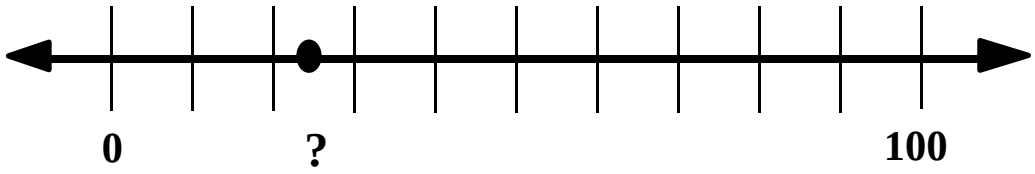
96. Between what two tick marks would you find the number 6,400?



a. The number 6,400 is located between tick marks ___ and ___.

b. What interval did you use to solve this problem? _____

97. What number does the dot "?" on the number line below represent? The dot is halfway between the tick marks.



a. The dot represents the number _____ .

b. What interval did you use to solve this problem? _____

c. Answer the following questions using the number line above.

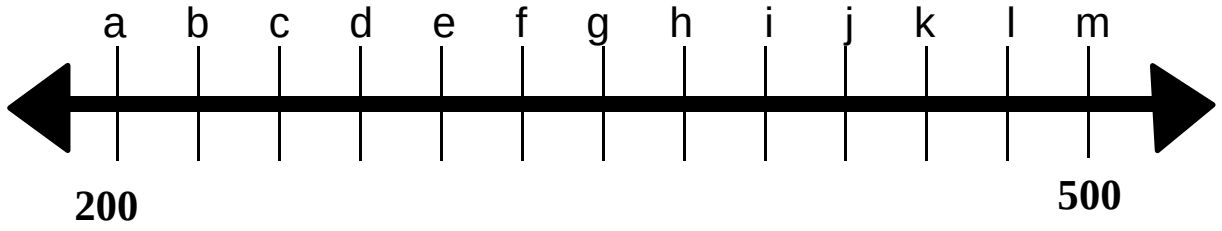
Maximum: _____ Minimum: _____

Range: _____

Analyze Number Lines Using Number Sense
Homework II

Using the numbers given, determine the interval on each number line. Use this interval to find the number that is asked for.

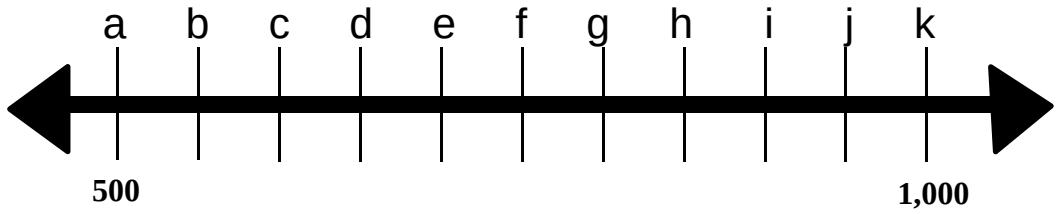
98. Label the tick mark on the number line below that represents the number 450.



a. The tick mark that represents the number 450 is _____.

b. What interval did you use to solve this problem? _____

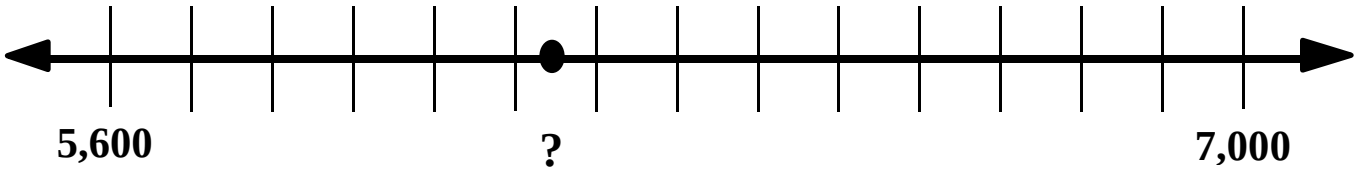
99. Between what two tick marks would you find the number 775?



a. The number 775 is located between tick marks ___ and ___.

b. What interval did you use to solve this problem? _____

100. What number does the dot "?" on the number line below represent? The dot is halfway between the tick marks.



a. The dot represents the number _____ .

b. What interval did you use to solve this problem? _____

Name _____

Compare Numbers

Classwork I

101. The symbol (>) means _____

102. What symbol represents the opposite of the above? _____

103. Compare the following numbers:

a. 102,045 _____ 102,104

b. 4365 _____4385

c. 178 _____ 177

d. 3,001,887 _____ 3,001,877

e. 87 _____ 101

f. 191 _____ 201

104. Choose the relation symbol (< , = , >) that makes each problem below true and write it on the space provided.

a. 7 hundreds + 8 tens _____ 80 + 70

b. 8,507 _____ 8,000 + 50 + 7

c. 60 tens and 50 ones _____ 65

Compare Numbers

Homework I

105. What is a relation symbol? _____

_____

106. Compare the following numbers:

a. 6,304 _____ 6,034

b. 5400 _____ 5410

c. 334 _____ 334

d. 4,343,344 _____ 4,344,344

e. 7,890 _____ 7,889

f. 645,003 _____645,030

107. Check the box next to each problem to indicate whether it is true or false.

a. 9 thousands + 5 ones > 9,050

b. 260 = 26 tens

c. 70 + 400 + 1 < 481

d. 40 tens and 10 ones > 401

	TRUE	FALSE
a		
b		
c		
d		

108. Place the following numbers/words on the blank spaces and then insert the appropriate relation symbols in between the blank spaces to compare the numbers. NOTE: Organize the numbers in the best way possible so that how they compare is easy to understand.

a. 784 943 874

_____ _____ _____

b. 50 tens 500 5 hundreds

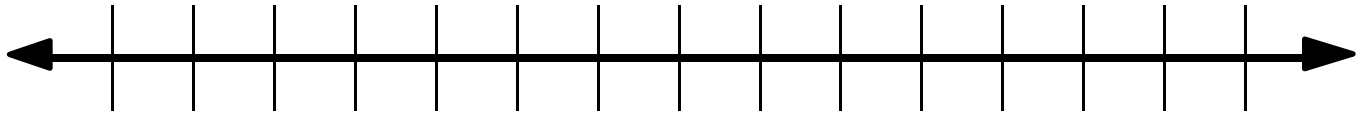
_____ _____ _____

c. 1 million 75 1,000,750 175,000

_____ _____ _____

Name _____
Order Numbers
Classwork I

109. Use the number line to plot these numbers: 25, 19, 28, and 17 in order.



a. What interval did you use to plot these numbers? _____

110. Write the numbers in order from least to greatest.

a. 48, 56, 42, 50 _____

b. 201, 194, 197, 191 _____

c. 1383, 1381, 1385, 1380_____

d. 3,464,681; 3,454,861; 3,444,168; 3,442,618

_____

111. Circle the list (row) that is in order from greatest to least?

a. 9,879 9,897 9,789 9,798
b. 9,789 9,798 9,879 9,897
c. 9,897 9,879 9,798 9,789

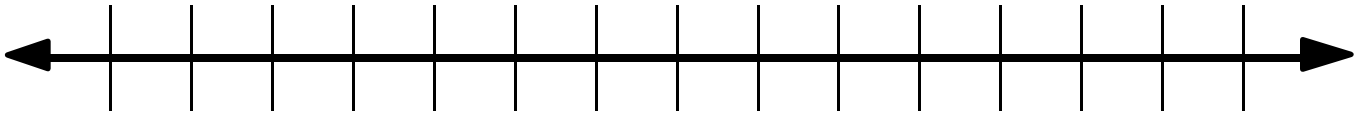
112. Four friends are planting flowers. Alan planted 89 flowers, Barb planted 63, Lucy 72, and Beth planted 88 flowers. Write the friends in order from least number of flowers planted to the greatest number planted. _____

_____

Order Numbers
Homework I

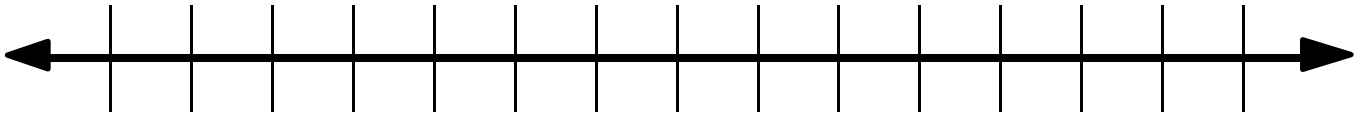
Use the number lines to plot the sequence of numbers (make up your own scale):

113. 134, 143, 159, 200, 161



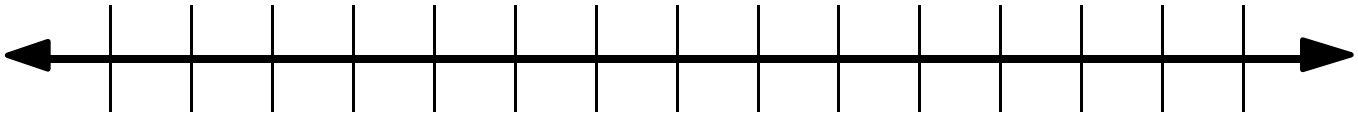
a. What interval did you use to plot these numbers? _____

114. 591, 593, 655, 689, 582



a. What interval did you use to plot these numbers? _____

115. 110,211; 111,211; 110,101; 111,200



a. What interval did you use to plot these numbers? _____

116. Rosa wrote the math sentence: 62 - ? = 39

Write Rosa's math sentence using only **words**. _____

_____

What number would replace the question mark to make the sentence true? _____

Order Numbers
Classwork II

117. List the numbers from the table below from greatest to least.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
1	5	8	5	3	0	3
1	5	6	5	7	6	3
1	5	6	5	6	5	3

_____

What is the first place-value position in which the digits are different?

_____

118. KAYLEE is learning about symbols. She uses symbols to write the Number sentence/algebraic equation shown. ? + 7 = 13

Write KAYLEE's number sentence using only **words.** _____

_____

Circle the number(s) that make KAYLEE's equation true.

0 1 3 6 10 23 45

119. QUIGLEE wrote the number sentence: ? < 30

Write 5 numbers that makes QUIGLEE's sentence true.

_____, _____, _____, _____, _____

Write 4 numbers that make QUIGLEE's sentence false.

_____, _____, _____, _____

120. Why can't QUIGLEE's number sentence be called an equation?_____

_____

121. Fill in three numbers to make this statement true.

_____ > _____ < _____

Order Numbers
Homework II

122. Write the numbers from the table below from least to greatest.

_____

_____

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
8	3	0	3	2	9	9
8	3	0	3	1	0	0
8	3	0	3	1	5	3
8	3	0	3	2	8	9

a. What is the first place - value position in which the digits are different?

_____

b. Add your own number in the last row that is less than the original least number

123. Fill in three numbers to make this statement true.

_____ < _____ < _____

124. QUIGLEE wrote the number sentence: ? - 8 > 30

Write 5 numbers that makes QUIGLEE's sentence true.

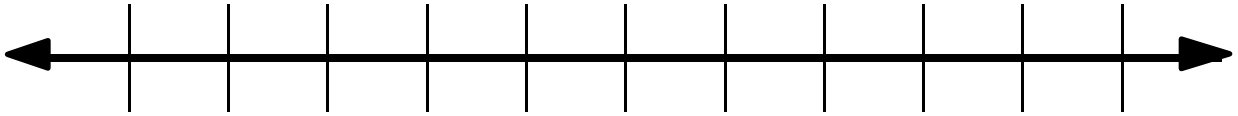
_____, _____, _____, _____, _____

Write 4 numbers that make QUIGLEE's sentence false.

_____, _____, _____, _____

Name _____
Round Numbers
Classwork I

125. Use the number line below to round the following numbers. Write each number on the number line for parts a, b, and c.
HINT: Find the number exactly halfway between the two numbers shown on the number line and write it on the line below.



_____

a. Round 163 to the nearest ten . _____

b. Round 168 to the nearest ten. _____

c. Round 165 to the nearest ten. _____

126. Round each of the numbers below to the nearest ten. Create your own number lines to help you.

a. 8,980 _____

b. 293 _____

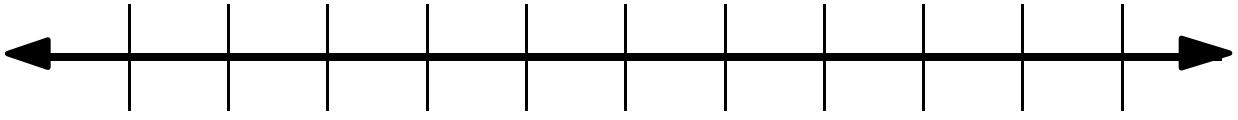
c. 878,777_____

d. 29,455 _____

127. Tell the place value for the digit 8 in each number.

384 _____ 5812_____ 28,545 _____

128. Use the number line below to round the following numbers. Write each number on the number line for parts a, b, and c.
HINT: Find the number exactly halfway between the two numbers shown on the number line and write it on the line below.



_____

a. Round 150 to the nearest hundred . _____

b. Round 138 to the nearest hundred. _____

c. Round 161 to the nearest hundred. _____

129. Round the number to the place value of the underlined digit.

a. 2̲32 _____ b. 9,6̲8̲8 _____

c. 100,9̲2̲3 _____ d. 10,4̲9̲9 _____

e. 483,1̲5̲0_____ f. 107,0̲9̲0 _____

130. Fill in the missing words. To round 9870 to the nearest hundred, look at the _____place. Since the number is _____ than 5, round _____.

131. In 2010, the U.S. Census stated that the population of Houston, TX. was 775,230. Round the population to the nearest hundred.

_____

Round Numbers
Homework I

132. Round each of the numbers below to the nearest hundred. Create your own number line below each problem to help you.

a. 789 _____

b. 7,249 _____

c. 65,081 _____

d. 800,057 _____

133. Round the number to the place value of the underlined digit.

a. 6<u>1</u>9 _____

b. 4,<u>5</u>55 _____

c. 122,<u>6</u>68 _____

d. 99,0<u>0</u>6 _____

e. 385,<u>4</u>81 _____

f. 4,209,4<u>3</u>8 _____

134. Tell the place value for the digit 1 in the following numbers:

a. 1,989,340 _____

b. 819,323 _____

c. 912 _____

d. 1,459 _____

135. When you round numbers you first look for the _____to round to. Then you look to the (direction) _____ and if the number is between 5-9 you _____.

136. Amy and Delilah went bowling. Amy's scores were 102, 97, and 115. Delilah's scores were 107, 88, and 97. Each girl added their own scores up by first rounding to the nearest hundred.

Delilah said she was the overall winner, but Amy said by rounding their scores and adding them up they were tied.
Which girl is correct?_____

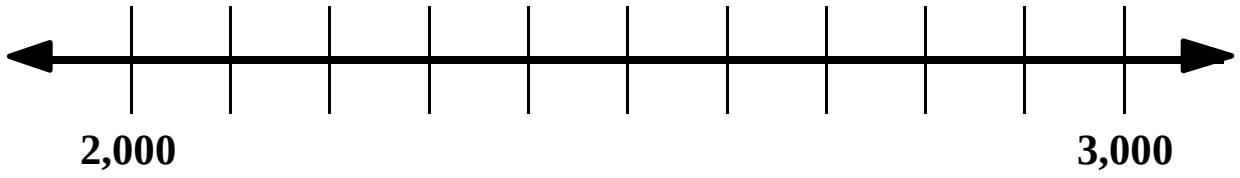
Explain your reasoning_____

_____

_____

Round Numbers
Classwork II

137. Use the number line below to round the following numbers. Write each number on the number line for parts a, b, and c.
HINT: Find the number exactly halfway between the two numbers shown on the number line and write it on the line below.



_____

a. Round 2,501 to the nearest thousand . _____

b. Round 2,399 to the nearest thousand. _____

c. Round 2,099 to the nearest thousand. _____

138. Round each of the numbers below to the nearest thousand. Create your own number lines to help you.

a. 1,287 _____

b. 21,493 _____

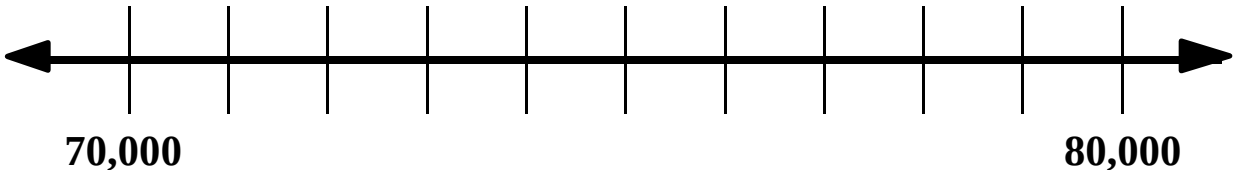
c. 9,457,333_____

d. 733,500 _____

139. Tell the place value for the digit 4 in each number.

a. 1,467,278 _____ b. 40,671 _____

140. Use the number line below to round the following numbers. Write each number on the number line for parts a, b, and c.
HINT: Find the number exactly halfway between the two numbers shown on the number line and write it on the line below.



_____

a. Round 70,600 to the nearest ten thousand . _____

b. Round 78,000 to the nearest ten thousand. _____

c. Round 74,894 to the nearest ten thousand. _____

141. Round the number to the place value of the underlined digit.

a. 8,432 _____ b. 11,787 _____

c. 5,100,678 _____ d. 924,999 _____

e. 67,200_____ f. 2,907,092 _____

142. Circle the possible digits that could fill in the blank place value in each of the numbers below. The digits that fill in the blank must make the statement true.

a. 14__,000 rounded to the nearest ten thousand is 140,000

0 1 2 3 4 5 6 7 8 9

b. 356,__00 rounded to the nearest thousand is 357,000

0 1 2 3 4 5 6 7 8 9

c. 6,3__3,789 rounded to the nearest ten thousand is 6,380,000

0 1 2 3 4 5 6 7 8 9

143. There were 24,879 people at the soccer game last Saturday. This Saturday 21,567 people attended. About how many more people attended the soccer game last Saturday?

Round to the nearest ten thousand when estimating. Show your work below.

Does your answer make sense? _____

Explain why you chose yes or no._____

_____

Round Numbers
Homework II

144. Round each of the numbers below to the nearest ten thousand. Create your own number line below each problem to help you.

a. 79,000 _____ b. 861,000 _____

c. 1,465,050 _____ d. 9,805,781 _____

145. Round the number to the place value of the underlined digit.

a. 8,742 _____ b. 424,675 _____

c. 811,111 _____ d. 8,509,608 _____

e. 289,000 _____ f. 7,492,000 _____

146. Tell the place value for the digit 8 in the following numbers:

a. 1,989,340 _____ b. 819,323 _____

c. 812 _____ d. 1,458 _____

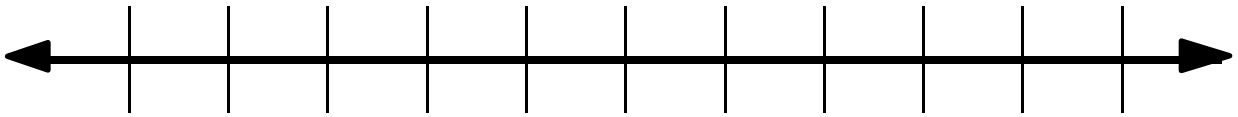
147. Circle the possible digits that could fill in the blank place value below. The digits that fill in the blank must make the statement true.

a. 9,35__,874 rounded to the nearest ten thousand is 9,360,000

0 1 2 3 4 5 6 7 8 9

Round Numbers
Classwork III

148. Use the number line below to round the following numbers. Write each number on the number line for parts a, b, and c.
HINT: Find the number exactly halfway between the two numbers shown on the number line and write it on the line below.



2,900 **3,000**

_____

a. Round 2,910 to the nearest hundred. _____

b. Round 2,940 to the nearest hundred. _____

c. Round 2,951 to the nearest hundred. _____

149. Round each of the numbers below to the nearest thousand. Create your own number lines to help you.

a. 89,622 _____ b. 2,459,050 _____

c. 9,635_____ d. 683,500 _____

150. Tell the place value for the digit 9 in each number.

a. 6,467,978 _____ b. 95,673 _____

151. Round the number to the place value of the underlined digit.

a. 9,532 _____ b. 91,682 _____

c. 956,678 _____ d. 8,999 _____

e. 1,499,000_____ f. 920,992 _____

152. There are 451 students at QUIGLEE's school. There are 521 students at KAYLEE's school. About how many more students attend KAYLEE's school?

QUIGLEE wants to round to the nearest hundreds to compare the schools. Is this the best way for him to estimate to find an approximate difference? _____

Explain your answer._____

_____

Give QUIGLEE a strategy that would help him find an estimate that would make more sense. Show your work in the space below and explain your strategy in words on the lines below.

_____

_____

Round Numbers
Homework III

153. Round each of the numbers below to the nearest ten thousand. Create your own number line below each problem to help you.

a. 98,000 _____

b. 891,000 _____

c. 4,795,874 _____

d. 999,999 _____

154. Round the number to the place value of the underlined digit.

a. 9,500 _____

b. 8,000,695 _____

c. 98,989 _____

d. 564,604 _____

e. 9,000 _____

f. 1,766,287 _____

155. The following numbers were rounded to what place value? Write the place value on the line provided.

a. 989,340 is about 1,000,000

_____
It was rounded to this place value.

b. 857,347 is about 857,000

_____
It was rounded to this place value.

c. 69,875 is about 70,000

_____
It was rounded to this place value.

d. 323,876 is about 323,900

_____
It was rounded to this place value.

Patterns
Classwork I

156. Rose runs 3 miles every morning. By Monday evening, she has run 3 miles. By Tuesday evening, she has run 6 miles for the week, and by Wednesday she has run 9 miles. How many miles will she have run by Sunday evening?_____

Explain_____

_____

157. What would be the rule for the table listed below? _____

_____

Fill in the missing values in the table.

x	y
3	9
4	12
5	
6	18
7	21

158. If you use the following rule, what would be the output number for each of these machines? RULE = Subtract 12

input 40

output _____

input 65

output _____

input 80

output _____

Patterns
Homework I

159. Ricky runs 2 miles every morning. By Monday evening, he has run 2 miles. By Tuesday evening, he has run 4 miles for the week, and by Wednesday he has run 6 miles. How many miles will he have run by Sunday evening?_____
Explain_____

_____

160. What would be the rule for the table listed below? _____

_____

Fill in the missing values in the table.

x	y
4	20
5	25
	30
7	
8	

161. If you use the following rule, what would be the output number for each of these machines? RULE = Multiply by 4

input 10

output _____

input 7

output _____

input 4

output _____

Patterns
Classwork II

162. Fill in the missing numbers in the following patterns/sequences.

a. 20, 17, ____ , 11, 8

b. 76, ____ , 84, 88, 92

c. 8, 16, 24, ____, 40, 48

d. 32, 16, 8, 4, ___

163. Look at the function table below. Create three equations that explain what is happening in the table as you go from column x to column y. Locate the rule in each of the equations and circle it.

Equation 1:_____

Equation 2:_____

Equation 3:_____

x	y
5	20
8	23
11	26
14	29
17	32

164. Look at the equation below. Using the rule in this equation, fill in each row of the function table with numbers that make this equation true.

C * 6 = D

C	D

Patterns
Homework II

165. Fill in the missing numbers in the following patterns/sequences. Write the rule below each pattern/sequence.

a. 48, 24, 12, 6, ___

Rule: _____

b. 1935, 1923 , ____, 1899, 1887

Rule: _____

c. 1, 4, 9, 16, ___, 36

Rule: _____

d. 1, 3, 2, 4, 3, ___, ___

Rule: _____

166. Look at the function table below. Create two equations that explain what is happening in the table as you go from column x to column y. Locate the rule in each of the equations and circle it. Fill in the missing boxes in the function table.

Equation 1:_____

Equation 2:_____

x	y
81	60
95	74
	85
120	
136	115

167. Look at the equation below. Using the rule in this equation, fill in each row of the function table with numbers that make this equation true.

F / 2 = G

F	G

Number Sense and Algebraic Concepts Review

Multiple Choice – Circle the correct answer for each question.

1) In the algebraic equation shown below, what is another name for the letter q?

$$8 + q = 5 \times 7$$

   a. operation
   b. variable
   c. relation symbol

2) Solve the following algebraic equation: $9 * 5 = w + 10$
   a. 45
   b. 55
   c. 35
   d. 95

3) KAYLEE and QUIGLEE are preparing for a race. KAYLEE ran 5 kilometers a day for one week. QUIGLEE ran 3 kilometers a day for two weeks. Who ran more miles? Show all work below.
   a. KAYLEE
   b. QUIGLEE
   c. Both ran the same distance

4) Look at question #3. What is the difference between the total distances KAYLEE and QUIGLEE ran?
   a. 2 kilometers
   b. 1 kilometer
   c. 5 kilometers
   d. 7 kilometers

5) If you had twelve stuffed animals, would you have an even number to share with a friend?
   a. Yes
   b. No

6) What is the place value of the 6 in the number 396,754?
   a. Hundreds
   b. Thousands
   c. Ten thousands
   d. Hundred Thousands

7) What is the place value of the 1 in the number 15,263?
   a. Hundreds
   b. Thousands
   c. Ten thousands
   d. Hundred Thousands

8) Which number has a digit in its thousands place that is less than 8?
   a. 9,443
   b. 9,743
   c. 9,741
   d. 7,442

9) Identify the pattern in the following numbers. 3, 6, 12, 24, ……
   What are the next three numbers in the pattern?
   a. 30, 36, 42
   b. 48, 96, 192
   c. 18, 12, 6

10) If you had several nickels, which is the best way to count them?
   a. 10, 20, 30, 40
   b. 25, 50, 75, 100
   c. 5 ,10, 15, 20

11) Which symbol means less than?

a. =

b. <

c. >

12) Kyle and Tina are playing a number guessing game. Kyle wrote the following two clues about his number.

* It has six digits * It is halfway between 530,000 and 540,000

What is Kyle's number?

a. 533,000

b. 535,000

c. 534,000

d. 535

13) What symbol should be used to compare these two numbers?

9,529 ⬭ 9,509?

a. = b. < c. >

14) Three friends compared the money they had in their pockets. Enrique had $25.25, Leslie had $23.50 and Amy had $27. Which of the following correctly compares the money?

a. 27 > 25.25 > 23.50

b. 25.25 > 23.50 > 27

c. 27 < 23.50 < 25.25

15) What is 1,552 rounded to the nearest hundred?

a. 2,000

b. 1,500

c. 1,600

d. 1,550

16) What is 1,473,462 rounded to the nearest thousand?
    a. 1,470,000
    b. 1,473,000
    c. 1,473,500
    d. 1,500,000

17) What is the expanded form for the number 64,021?
    a. 60,000 + 4,000 + 20 + 1
    b. 60,000 + 4,000 + 200 + 1
    c. 6,000 + 4,000 + 200 + 1

18) What is the standard form for 700,000 + 90,000 + 300 + 10
    a. 79,310
    b. 793,010
    c. 790,310
    d. 7,900,310

Short Constructed Response - Write the correct answer for each question.

19) Madison went shopping for a new book bag. The yellow book bag was $16.95 and the red book bag was $12.48. Which price is an odd number? _____

20) Write the number 345,902 in words.
    _____

21) Round 3,987 to the nearest hundred.
    _____

22) If there are 149,762 different types of animals and insects on the Earth, round this amount to the nearest ten thousand.

_____

23) List the following numbers from least to greatest. 32,311; 31,231; 32,113; 32,131

_____

_____

24) What is the missing number in the following pattern?

42, 35, 28,  , 14, 7

25) Identify the pattern in the table below.

Visitors to the Amusement Park

Month	Total Visitors
June	420
July	440
August	460
September	480
October	500

Explain the rule of the pattern and how the numbers changed.

_____

What were the Total Visitors for the months of April and May?

_____

26) Identify the pattern in the function table. What is the rule for this pattern? _____

x	y
2	12
4	24
6	36
8	48

Extended Constructed Response - Answer all part of the questions.

27) Use the number line to plot the sequence of the numbers below. (make up your own scale)

_____

871, 845, 880, 855, 851

Now write the five numbers from least to greatest on this space.

_____

Next, add two more numbers to the number line. Now write the new order of the seven numbers from least to greatest on this space.

_____

28) What would be the tenth shape if this pattern continued?

_____ 

Explain how you got your answer.

_____

_____

_____

ANSWER KEY
Number Sense and Algebraic Concepts Unit

TOPIC 1: Algebraic Equations/Number Sentences

Classwork I :

1. variable
2. equals sign (relation symbol)
3. operation (division sign)
4. expression
5. equation
6. expression

An equals sign and a solution would be necessary to turn an expression into an equation.

7. False (7 does not equal 6)
8. True (10 = 10)
9. False (9 does not equal 14)
10. k = 13
11. k = 4
12. k = 7

Homework I :

13. equals sign (relation symbol)
14. operation or operator (multiplication sign)
15. variable
16. equation
17. expression
18. Equation

Answers may vary (students could turn the expression 10^2 to equation $10^2 = 10 \times 10$

19. True (6=6)
20. False (12 does not equal 6)
21. True (8=8)
22. w = 13
23. w = 29
24. w = 3

Classwork II :

25. Solution = 30
26. Solution = 4
27. Solution = 30
28. c = 10
29. q = 7
30. t = 0
31. Answers may vary (possible answers: h + 3 = 7 or 0 = h*0 or 2 x 2 = h)

Homework II :

32. Solution = 10
33. Solution = 24
34. Solution = 19
35. j = 5
36. f = 1
37. u = 13
38. Answers may vary (Possible answers: 33+w or (w*5) + 5 or 47 – w)

TOPIC 2: Problem Solving

Classwork I :

39. a. 15 = j + 8
    b. 30 + 5 = 7g
    c. n – 7 = 6

40. C and D
41. B and C
42.a. Algebraic Equation: 20 – 7 = m or 7 + m = 20
43.a. Algebraic Equation: 12 x 3 = p (or p= 12 + 12 + 12)
42.b. SOLUTION: The cashier will give KAYLEE back $13.
43.b. SOLUTION: QUIGLEE will need to buy 36 party favors.

Homework I :

44.a. 7 = p – 9
    b. q/5 = 6
    c. m – 4 = 15

45. C
46. E
47.a. Algebraic Equation: (7x4) + 50 = m or 50 + (7x4) = m
48.a. Algebraic Equation: 132 – 98 = S
47.b. SOLUTION: KAYLEE now has $78 in her savings account.
48.b. SOLUTION: QUIGLEE would have saved $34.

Classwork II :

49. Algebraic Equation: n * 7 = 56 or 56 ÷ n = 7
50. Algebraic Equation: 7 * 24 = r or 12 x 14 = r

51.A. SOLUTION: KAYLEE received 10 stickers and I received 50 stickers.
    B. SOLUTION: There were 78 total stickers on the sheet before any were given away.

Homework II :

52.A. Algebraic Equation: 12 x 4 = g (or 4 x 12 = g)
Solution to part A: There are 48 markers in one large box.
52.B. Algebraic Equation: 5 x 48 = m
Solution to part B: 240 markers were ordered altogether for the classroom.

53.A. SOLUTION: KAYLEE spent $16 on the new shirt and $12 on the pair of sunglasses. The total for these two items was $28.
53.B. SOLUTION: KAYLEE had $47 of birthday money before she went shopping.

TOPIC 3: Place Value/Number Sense Through the Millions

Classwork I :

54. The number 49 is ODD. You only have to look at the ones place value to determine if a number is even or odd. The digit 9 is odd because you can't make only pairs with this number. One will be left over after making 4 pairs. The tens place is always even since the digit represents groups of 10 (The 4 in this number is 4 groups of 10 = 40).

55. EVEN numbers: 26 , 1220, 994

56.a. tens = 4 ones = 8
b. tens = 9 ones = 0
c. tens = 0 ones = 7
d. tens = 10 ones = 0

57.a. 750 b. 98 c. 605
58.a. ten b. 10 c. 100,000

59.a. 21,703 b. 21,710 c. 20,000 d. 200,000

60.a. 60 tens = 6 hundreds
b. 100 tens = 10 hundreds = 1 thousands
c. 200 tens = 20 hundreds = 2 thousands

Homework I :

61. The number 58 is EVEN. You only have to look at the ones place value of a number to determine if it is even. The digit 8 is even because you can make 4 pairs and nothing is left over.
62. ODD numbers: 121, 27, 63, 1,135

63.a. tens = 3 ones= 5
b. tens=8 ones = 0
c. tens = 0 ones = 9
d. tens = 12 ones =0

64. a. 930 b. 106 c.420
65. a. 20 b. thousand c. 1,000

66. a. 6,032,504 b. 6,033,104 c. 6,000,000 d. 60,000,000

67.a. 80 tens = 8 hundreds
b. 50 hundreds = 5 thousands
c. 100 hundreds = 10 thousands = 1 ten thousands

Classwork II:

68. 453 x 10 = 4,530 a. hundreds b. 500
69. 28 x 10 = 280 a. tens b. 80

70. a. 100 b. 10,000 c. 20 d. 1,000

Homework II:

71. 1,429 x 10 = 14,290 a. hundreds b. 200
72. 93 x 100 = 9,300 a. thousands b. 9,000

73.a. 10 b. 100 c. 100,000 d. 100

TOPIC 4: Read and Represent Multi-Digit Numbers

Classwork I :

74. a. 5 hundreds, 9 tens, 3 ones
b. 9 thousands, 6 hundreds, 1 ten, 7 ones
c. 1 ten thousands, 4 thousands, 8 hundreds , 3 tens, 3 ones
d. 4 millions, 3 hundred thousands, 7 hundreds, 1 ten
e. 1 hundred thousands, 6 thousands, 9 hundreds, 5 ones
f. 2 millions, 8 hundred thousands, 9 ten thousands, 7 thousands, 9 hundreds, 2 tens

75. a. Eight hundred twenty-seven
b. One hundred four thousand four hundred thirty-nine
c. Two million four hundred thirty thousand two hundred eighty-eight

76. a. 7,548 b. 5,302 c. 300,009

Homework I :

77. a. 8 hundreds, 6 tens, 5 ones
b.1 ten thousands, 9 thousands, 3 hundreds, 2 tens, 5 ones
c. 8 thousands, 4 hundreds, 1 one
d. 5 millions, 3 hundred thousands, 5 ten thousands, 4 thousands, 9 hundreds, 8 tens
e. 5 hundred thousands, 4 ten thousands, 3 thousands, 8 ones
f. 4 millions, 4 hundreds, 6 ones

78. a. Eleven thousand nine hundred two
b.Seven million four hundred three thousand two hundred ten
c. Three million nine hundred ninety-nine thousand three hundred forty-nine

79. a. 2,039,084 b. 600,029

Classwork II :

80. a. 900 + 20 + 7 b. 1,000 + 200 + 4
81. B
82. Next Ticket: 27,852 Why? Every 50th ticket wins so this means you add 50 to each ticket number to find the next ticket in the sequence.
83. Yes Explain: In 1,734 the value of the 7 is 700. In 1,874 the value of the 7 is only 70.
84. a. 6,646 b. 211,909 c. 5,004, 595 d. 8,400,444 e. 392,888

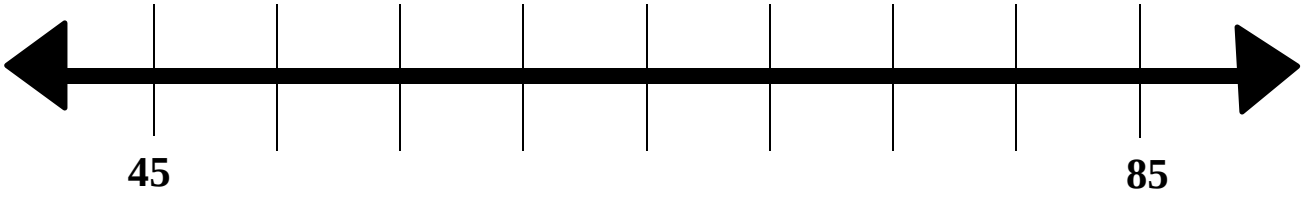
Homework II :

85.a. 400,000 + 30,000 + 9,000 + 400 + 50
b. 1,000,000 + 300,000 + 9,000 + 6
86. Yes Explain: In the number 8,003 the value of the 8 is 8,000. In the number 9,890, the value of the 8 is 800.
87. a. 700,930 b. 4,030,893 c. 679,005 d. 80,054,010 e. 30,908
88. a. 4,605,720
b.4 millions, 6 hundred thousands, 5 thousands, 7 hundreds, 2 tens
c. 4,000,000 + 600,000 + 5,000 + 700 + 20
89. It separates place values into families (i.e. thousands, millions) and makes it easier to read large numbers in standard form.

TOPIC 5: Analyze Number Lines Using Number Sense

Classwork I :

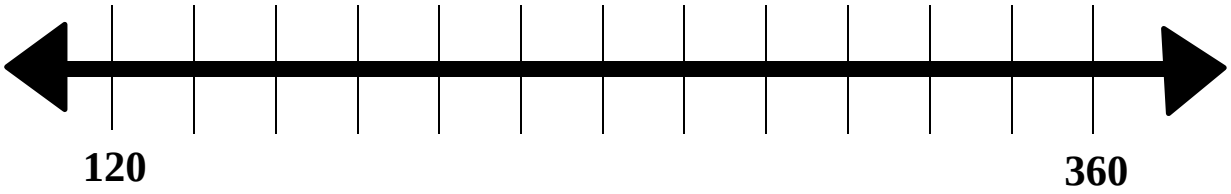
90. a. tick marks b. interval (scale)
Answers may vary: A number line helps you organize numbers. They are especially important when creating graphs (x and y axes with a scale)
91. a. 75
b. SCALE: each interval is 5
c. Minimum: 60 Maximum: 90 Range: 30 (90-60)
92. QUIGLEE'S cousin in 65 years old. (interval is 5 on number line below, could use 10)



Homework I :

93. a. 625
    b. SCALE: each interval is 50
    c. Minimum: 250 Maximum: 1,000 Range: 750 (1000 – 250)

94. SOLUTION: **KAYLEE now has $1,170 in her bank account.**
    Scale used on number line below is an interval of 20. The number in the middle is 240 and this represents her August paycheck.
    120 + 360 + 240 + (450 amount already in bank account) = 1,170



Classwork II :

95. a. i (this represents 200 on the number line)
    b. interval is 25

96. a. between tick marks i and j (i represents 6,000 and j represents 6,500)
    b. interval is 500

97. a. 25 b. interval = 10 c. Maximum: 100 Minimum: 0 Range 100

Homework II :

98. a. k b. Interval = 25
99. a. between f and g b. Interval = 50
100. a. 6,150 (between 6,100 and 6,200) b. Interval = 100

TOPIC 6: Compare Numbers

Classwork I :

101. greater than
102. <
103.
    a. 102,045 __<__ 102,104 b. 4365 __<__ 4385
    c. 178 __>__ 177 d. 3,001,887 __=__ 3,001,877
    e. 87 __<__ 101 f. 191 __<__ 201

104. a. > b. > c. >

Homework I :

105. A relation symbol is a symbol that compares two expressions.

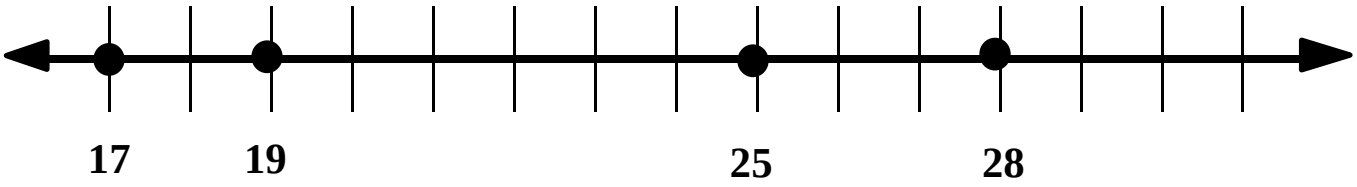
106. a. 6,304 __>__ 6,034 b. 5400 __<__ 5410
    c. 334 __=__ 334 d. 4,343,344 __<__ 4,344,344
    e. 7,890 __>__ 7,889 f. 645,003 __<__ 645,030

107. a. False b. True c. True d. True
108. a. Answers may vary 784 < 874 < 943
b. 50 tens = 500 = 5 hundreds
c. 1,000,750 > 1 million 75 > 175,000

TOPIC 7: Order Numbers

Classwork I :

109. Plot 17, 19, 25, 28
a. Interval = 1

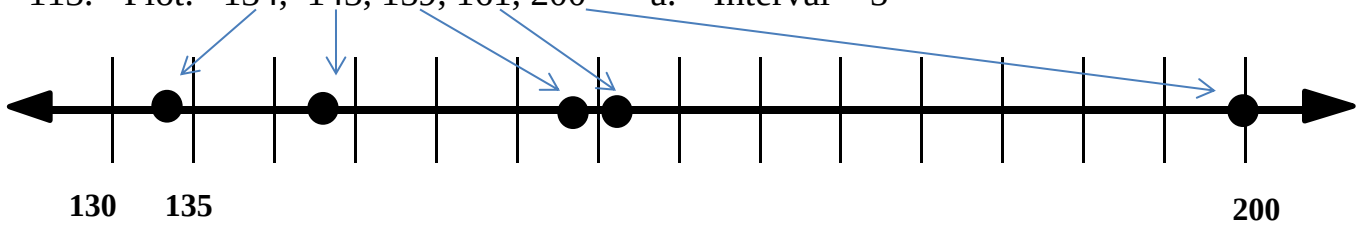


110. a. 42, 48, 50, 56
b. 191, 194, 197, 201
c. 1380, 1381, 1383, 1385
d. 3,442,618 ; 3,444,168 ; 3,454,861; 3,464,681

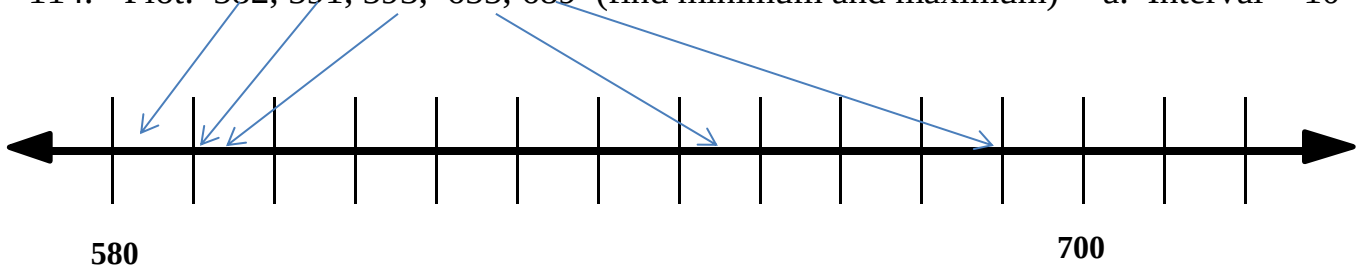
111. C
112. Barb, Lucy, Beth, Alan (63, 72, 88, 89)

Homework I :

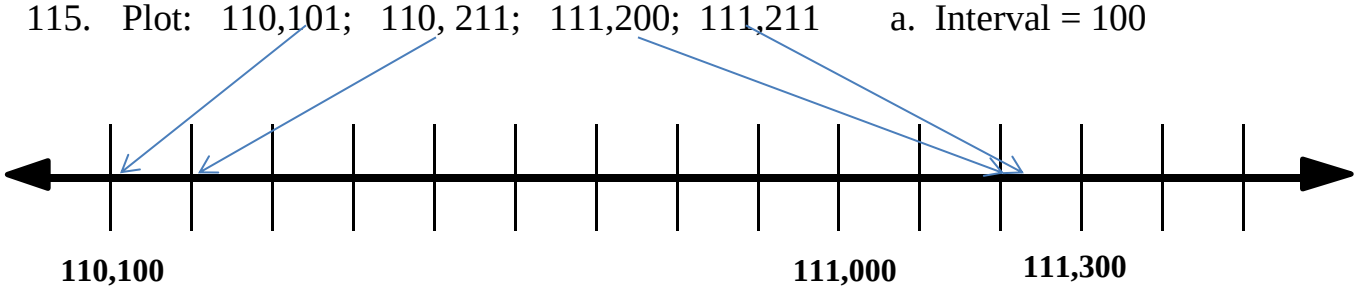
113. Plot: 134, 143, 159, 161, 200 a. Interval = 5



114. Plot: 582, 591, 593, 655, 689 (find minimum and maximum) a. Interval = 10



115. Plot: 110,101; 110, 211; 111,200; 111,211 a. Interval = 100



116. Sixty-two minus what is thirty-nine (there are other possible ways to say equals)
23 would replace the question mark to make the sentence true.

Classwork II :

117. 1,585,303 ; 1,565,763 ; 1,565, 653
Ten Thousands

118. What plus seven equals thirteen
CIRCLE the number 6 (only number to make equation true)

119. Answers may vary (possible answers to make sentence true: 1,2,3,4,5)
Answers may vary (possible answers to make sentence false: 30, 31, 32, 33)

120. There is no EQUALS symbol
121. Answers may vary (possible answer $10 > 5 < 6$)

Homework II :

122. 8,303,100; 8,303,153; 8,303,289; 8,303,299
a. Hundreds
b. Answers will vary

123. Answers will vary (possible answer: $2 < 4 < 6$)
124. Answers will vary (possible answers to make sentence true: 40, 50, 60, 70, 80)
Answers will vary (possible answers to make sentence false: 20, 10, 9, 8)

TOPIC 8: Round Number

Classwork I :

125. Exact midpoint of number line = 165 a. 160 b. 170 c. 170
126. a. 8,980 b. 290 c. 878,780 d. 29,460
127. tens hundreds thousands
128. Exact midpoint of number line = 150 a. 200 b. 100 c. 200
129. A. 200 b. 9,690 c. 100,920 d. 10,500 e. 483,200 f. 107,090

130. …look at the tens place. Since the number is greater than 5, round up.

131. 775,200

Homework I :

132. a. 800 b. 7,200 c. 65,100 d. 800,100
133. a. 620 b. 4,600 c. 122,700 d. 99,010 e. 385,500 f. 4,209,440
134. a. millions b. ten thousands c. tens d. thousands
135. …look for the place value to round to. Then you look to the (direction) right and if the number is between 5-9 you round up.
136. Amy is correct EXPLAIN: By rounding to the nearest hundred both girls have a total of 300 points. Therefore, by rounding to this place value and adding the scores up Amy is correct. Both girls are tied. Delilah said she is the overall winner, but if the exact scores are added up, Amy has a total score of 314 points and Delilah only has 292 points.

Classwork II :

137. Exact midpoint of number line = 2,500 a. 3,000 b. 2,000 c. 2,000
138. a. 1,000 b. 21,000 c. 9,457,000 d. 734,000
139. hundred thousands ten thousands
140. Exact midpoint of number line = 75,000 a. 70,000 b. 80,000 c. 70,000
141. A. 8,000 b. 12,000 c. 5,100,000 d. 920,000 e. 67,000 f. 2,910,000
142. a. 0,1,2,3,4 b. 5,6,7,8,9 c. 8
143. NO Explain: When rounding to the ten thousands, the answer to the problem is zero (20,000 – 20,000). That estimate shows that both Saturdays were the same and the approximate difference cannot be determined.

Homework II :

144. a. 80,000 b. 860,000 c. 1,470,000 d. 9,810,000
145. a. 9,000 b. 420,000 c. 810,000 d. 8,510,000 e. 290,000 f. 7,492,000
146. a. ten thousand b. hundred thousand c. hundreds d. ones
147. 5,6,7,8, and 9

Classwork III

148. Exact midpoint of number line = 2,950 a. 2,900 b. 2,900 c. 3,000
149. a. 90,000 b. 2,460,000 c. 10,000 d. 684,000
150. a. hundreds b. ten thousands
151. a. 10,000 b. 92,000 c. 1,000,000 d. 9,000 e. 1,500,000 f. 920,000

152. No Explain: Rounding to the nearest hundred will make QUIGLEE's estimate 500 – 500. This estimate is 0 and does not show about how many more students attend KAYLEE's school.
A better estimate would be to round the numbers to the tens place.
520 - 450 = about 70 more students.

Homework III :

153. a. 100,000 b. 900,000 c. 4,800,000 d. 1,000,000
154. a. 10,000 b. 8,000,700 c. 99,000 d. 560,000 e. 9,000 f. 1,766,300
155. a. hundred thousands b. thousands c. ten thousands d. hundreds

TOPIC 9: Patterns

Classwork I :

156. SOLUTION: 21 miles EXPLAIN: The rule is +3 for this problem. The first three days of the week (numbers in the sequence) are given: 3, 6, 9,
Using the rule, you continue the pattern until Sunday: 3, 6, 9, 12, 15, 18, **21**

157. The rule for the table is Multiply by 3
158. Output = 28 Output = 53 Output = 68

Homework I :

159. SOLUTION: 14 miles EXPLAIN: The rule is +2 for this problem. The first Three days of the week (numbers in the sequence) are given: 2, 4, 6,
Using the rule, you continue the pattern until Sunday: 2, 4, 6, 8, 10, 12, **14**

160. The rule for the table is Multiply by 5 X = 6 Y = 35 and 40
161. Output = 40 Output = 28 Output = 16

Classwork II :

162. a. 14 b. 80 c. 32 d. 2
163. Answers may vary (rule should be circled, but is underlined in each equation below.)
Possible choices: 5 + 15 = 20 8 + 15 = 20 11+15 = 20

164. Answers may vary. If student starts with C = 1 in the equation, table would be filled in as shown.

C	D
1	6
2	12
3	18
4	24
5	30

Homework II :

165. a. 3 Rule: ÷2
b. 1911 Rule: -12
c. 25 Rule: multiply each number by itself or the sequence of square numbers in increasing order.
d. 5 and 4 Rule: + 2 then -1

166. Answers may vary (rule should be circled, but is underlined in each equation below.)
Possible choices: 81 – 21 = 60 95 – 21 = 74
FILL in Table: X = 106 Y = 99

167. Answers will vary. If student starts with F = 2 in the equation, table would be filled as shown.

F	G
2	1
4	2
6	3
8	4

Number Sense and Algebra Review Answer Key

1) B	6) B	11) B	16) B
2) C	7) C	12) B	17) A
3) A	8) D	13) C	18) C
4) D	9) B	14) A	
5) A	10) C	15) C	

19) $16.95 is odd price of book bag
20) Three hundred forty-five thousand, nine hundred two
21) 4,000
22) 150,000 animals and insects
23) 31,231; 32,113; 32,131; 32,311
24) 21
25) The numbers increase by 20 from June to Sept. Total Visitors April (380) May (400)
26) Multiply by 6
27) Scale will vary….least to greatest 845, 851, 855, 871, 880….Add two numbers…Varied answers Example: 842, 845, 851, 855, 871, 875, 880
28) Triangle….The pattern is arrow, triangle, triangle, square. This group of four repeats itself, making the tenth shape a triangle.