

## Unit 1 - Task #1

**Part One:** Write the number 555 on the blank place value chart. Use place value blocks to represent this number.  
**Part Two:** Underneath each digit, write the value of the digit. Using the place value block, decide what the relationship is between each of the 5's.

**Part Three:** Insert another 5 in the next open place value to create the number 5,555. Decide as a class what the name for this place value is and what the value of the digit is. Look at the relationship of this place value compared to the others.

**Part Four:** Repeat the previous step for 3 more place value positions.

**Place Value Chart**

MILLIONS	HUNDRED THOUSANDS	TEN THOUSANDS	THOUSANDS	HUNDREDS	TENS	ONES
				5 (500)	5 (50)	5 (5)
			5, (5,000)	5	5	5
		5 (50,000)	5,	5	5	5
5, (5,000,000)	5 (500,000)	5	5,	5	5	5

I Can Statements:

1. I can identify patterns in the place value system.
2. I can read and write whole numbers within a million using numerals.

## Unit 1 – Math Task #2 (Build the Number)

Follow the directions below using the Build a Number Set. Record the number in standard, word, and expanded form.  
**Directions:** (Answers will vary for 3-7; sample answers provided. Check for understanding).

1. Build the number with the greatest value.
2. Build the number with the least value.
3. Build a number between 100 and 1,000.
4. Build a number between 1,000 and 10,000.
5. Build a number between 100,000 and 1,000,000.
6. Build a number greater than million.
7. Build a number of your choice.

Task	Standard Form	Word Form	Expanded Form
1. Greatest Value	9,999,999	nine million, nine hundred ninety-nine thousand, nine hundred ninety-nine	9,000,000 + 900,000 + 90,000 + 9,000 + 900 + 90 + 9
2. Least Value	1	one	1
3. Between 100 & 1000	762	seven hundred sixty-two	700 + 60 + 2
4. Between 1000 & 10,000	8,934	eight thousand, nine hundred thirty-four	8,000 + 900 + 30 + 4
5. Between 100,000 & 1,000,000	658,273	six hundred fifty-eight thousand, two hundred seventy-three	600,000 + 50,000 + 8,000 + 200 + 70 + 3
6. Greater than a million	1,007,615	one million, seven thousand, six hundred fifteen	1,000,000 + 7,000 + 600 + 10 + 5
7. Your Choice	24,802	twenty-four thousand, eight hundred and two	20,000 + 4,000 + 800 + 2

### I Can Statements:

1. I can read and write whole numbers within a million using numerals.
2. I can read and write whole numbers within a million using number names.
3. I can read and write whole numbers within a million using expanded form.
4. I can compare whole numbers within a million using place value understanding.

## Unit 1 – Math Task #3 (Comparing Numbers)

Follow the directions below using the Build a Number Set.

**Directions:** (Answers will vary; sample answers provided. Check for understanding).

1. Build the number 47,271 and then build a number with a greater value.
2. Build the number 351 and then build a number with a lesser value.
3. Build the number 267,378 and then build a number with a greater value.
4. Build the number 7,358 and then build a number with a lesser value.

Task	Standard Form	Word Form	Expanded Form	Record as a comparison (<, >, =)
1.	56,439	fifty-six thousand, four hundred thirty-nine	50,000 + 6,000 + 400 + 30 + 9	56,439 > 47,271
2.	204	two hundred four	200 + 4	204 < 351
3.	403,529	four hundred three thousand, five hundred twenty-nine	400,000 + 3,000 + 500 + 20 + 9	403,529 > 267,378
4.	3,972	three thousand, nine hundred seventy-two	3,000 + 900 + 70 + 2	3,972 < 7,358

I Can Statements:

1. I can read and write whole numbers within a million using numerals.
2. I can read and write whole numbers within a million using number names.
3. I can read and write whole numbers within a million using expanded form.
4. I can compare whole numbers within a million using place value understanding.
5. I can record the results of decimal comparisons.

## Unit 1 - Task #4

To start the new school year at The University of Michigan, Jodi needed to buy the items included on the table below. She also needed to pay for her tuition for four years, which was \$146,934

Round each price to the nearest tens place and to the nearest greatest place value to decide about how much Jodi will be spending in all. Use the open number lines on the following pages to show how you rounded each value.

Actual Price	Price rounded to the nearest tens place	Price rounded using the greatest place value
Backpack \$38	\$40	\$40
Laptop \$365	\$370	\$400
Paper and pencil supplies \$52	\$50	\$50
Calculator \$112	\$110	\$100
Shoes \$87	\$90	\$90
Bunk Bed \$1,375	\$1,380	\$1,000
Car \$27,823	\$27,820	\$30,000
Books \$3,818	\$3,820	\$4,000
Tuition for Four Years \$146,934	\$146,930	\$100,000
<b>Approximate Total:</b>	\$180,610	\$135,680

Use a calculator to determine the actual amount. \$180,604

Is your answer more accurate when you round to the tens place or when you round to the greatest place value? Why?

The answer is more accurate when you round to the  
tens place.

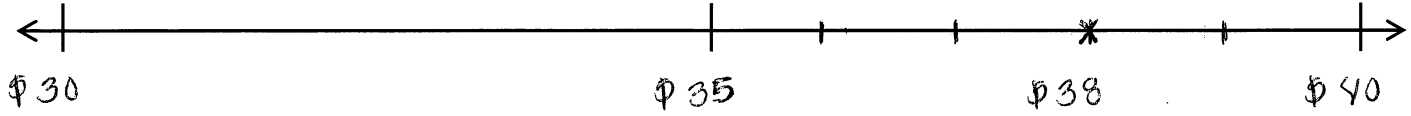
I Can Statements:

1. I can round whole numbers within a 1,000,000 using place value understanding.
2. I can check to see if my answer is reasonable using estimation strategies.

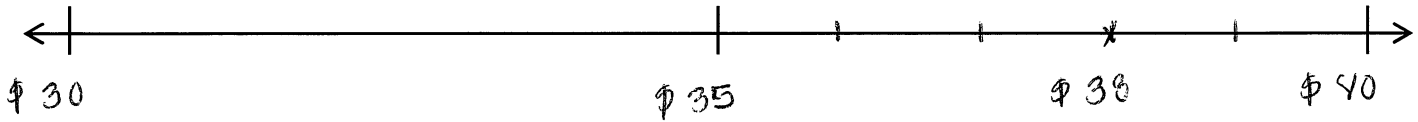
## Unit 1 - Task #4

Use the open number lines to show how you rounded each value.

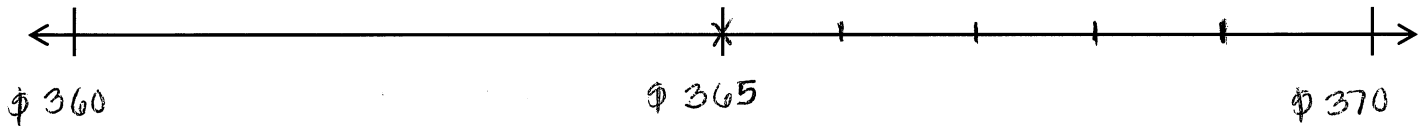
Backpack \$38: Nearest tens \$ 40



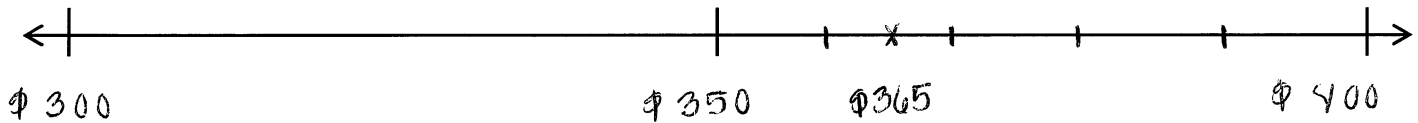
Backpack \$38: Nearest greatest place value \$ 40



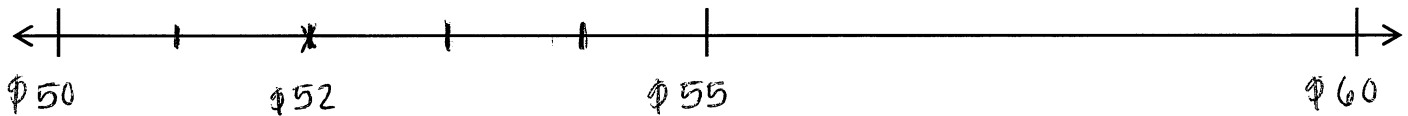
Laptop \$365: Nearest tens \$ 370



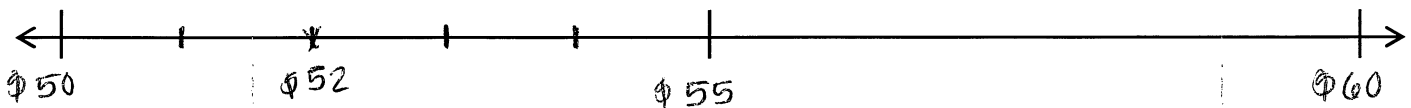
Laptop \$365: Nearest greatest place value \$ 400



Paper and pencil supplies \$52: Nearest tens \$ 50



Paper and pencil supplies \$52: Nearest greatest place value \$ 50

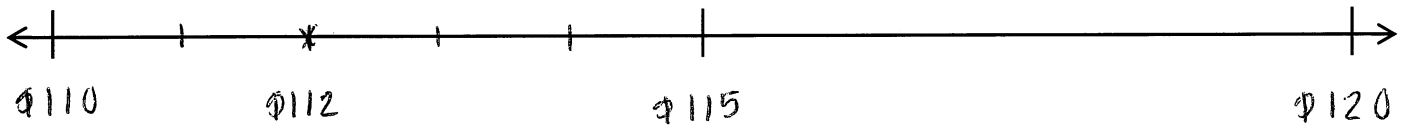


I Can Statements:

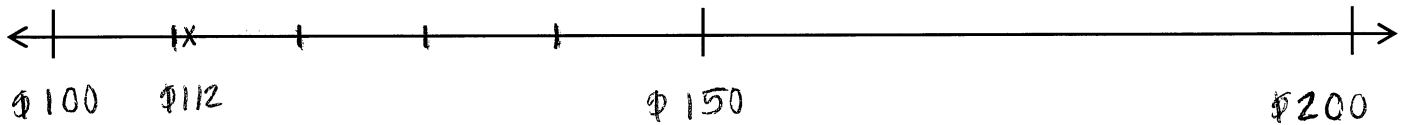
1. I can round whole numbers within a 1,000,000 using place value understanding.

### Unit 1 - Task #4

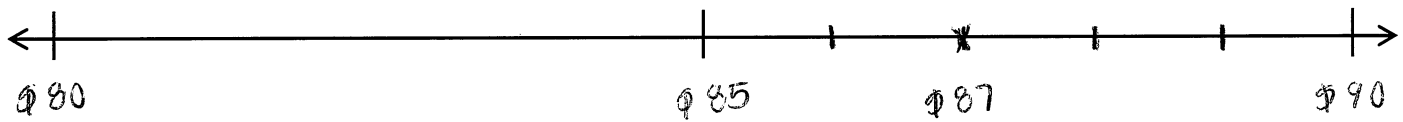
Calculator \$112: Nearest tens \$ 110



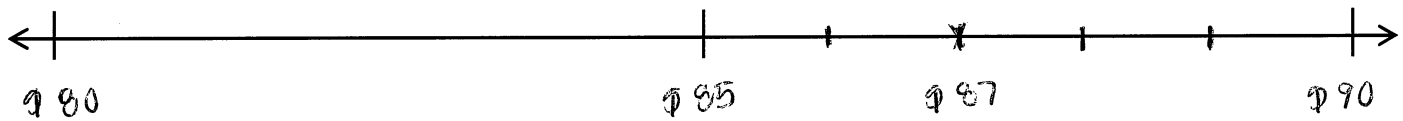
Calculator \$112: Nearest greatest place value \$ 100



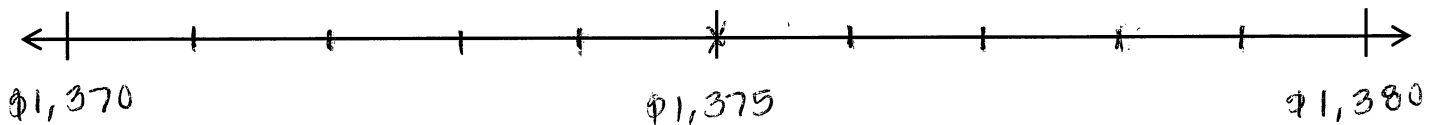
Shoes \$87: Nearest tens \$ 90



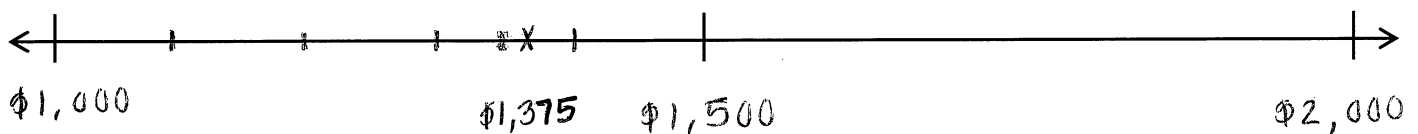
Shoes \$87: Nearest greatest place value \$ 90



Bunk Bed \$1,375: Nearest tens \$1,380



Bunk Bed \$1,375: Nearest greatest place value \$1,000

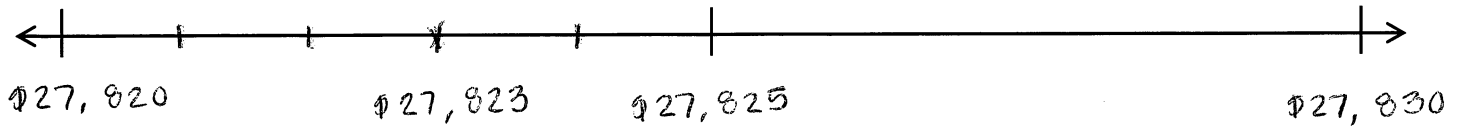


I Can Statements:

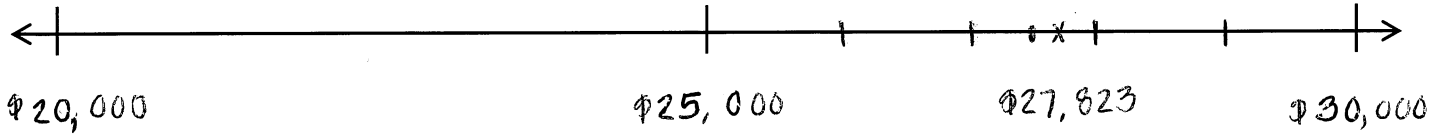
1. I can round whole numbers within a 1,000,000 using place value understanding.

## Unit 1 - Task #4

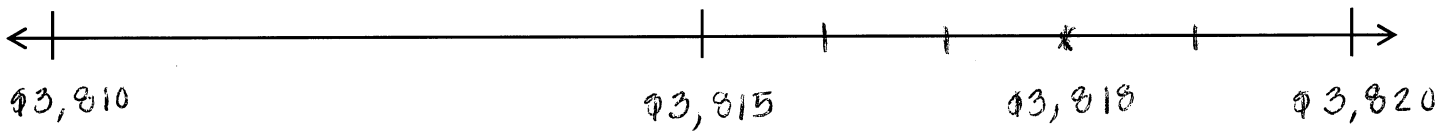
Car \$27,823: Nearest tens    \$ 27,820



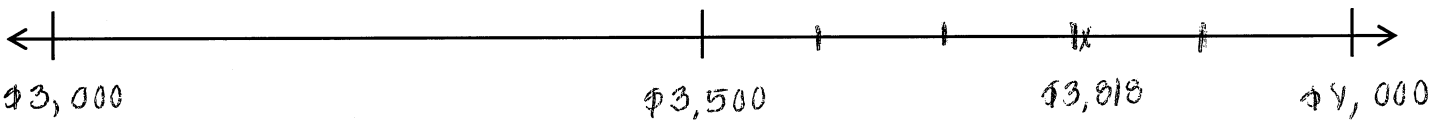
Car \$27,823: Nearest greatest place value    \$ 30,000



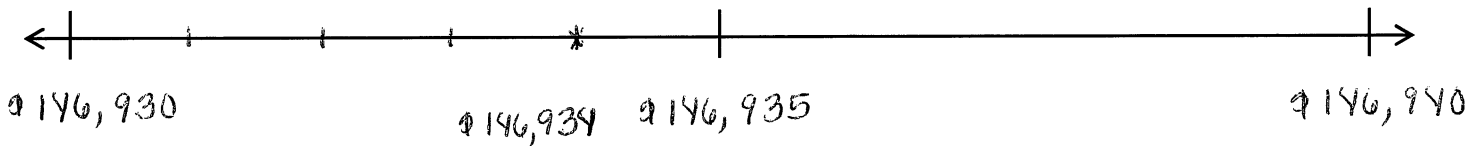
Books \$3,818: Nearest tens    \$ 3,820



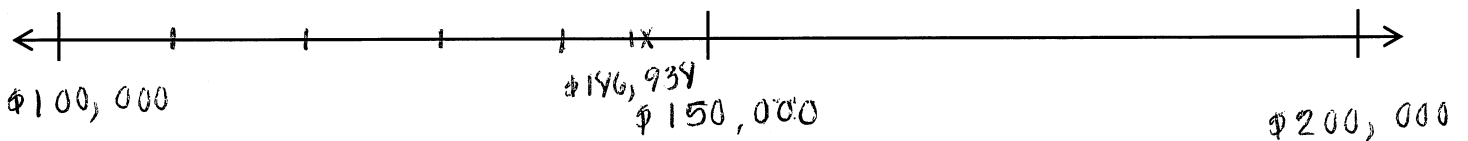
Books \$3,818: Nearest greatest place value    \$ 4,000



Tuition for Four Years \$146,934: Nearest tens    \$ 146,930



Tuition for Four Years \$146,934: Nearest greatest place value    \$ 100,000



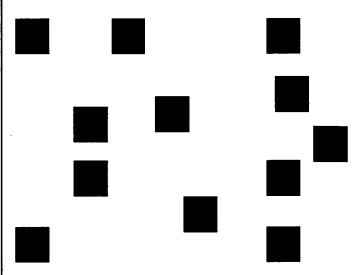
I Can Statements:

1. I can round whole numbers within a 1,000,000 using place value understanding.


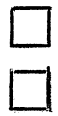
## Unit 1 - Task #5

### Part 1:

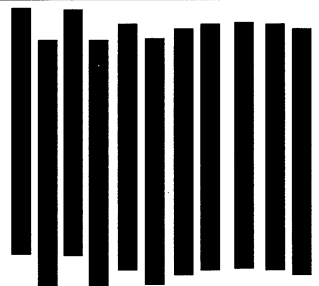
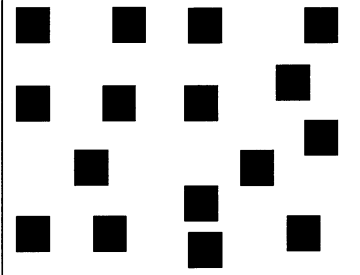
1. Build the following number using your base-ten blocks. 12

Thousands	Hundreds	Tens	Ones
			


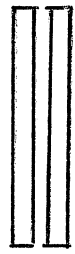
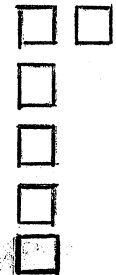
Use place value blocks to show this value another way. Record your work on the chart below.

Thousands	Hundreds	Tens	Ones
			

2. Build the following number using your base-ten blocks. 126

Thousands	Hundreds	Tens	Ones
			

Use place value blocks to show this value another way. Record your work on the chart below.

Thousands	Hundreds	Tens	Ones
			

I Can Statements:

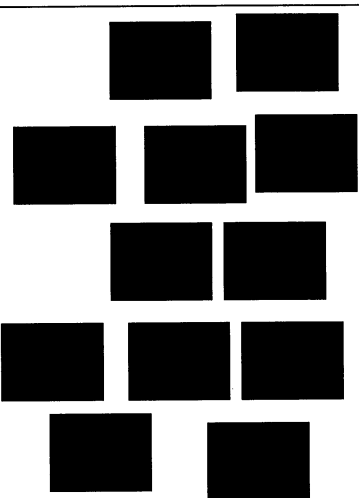
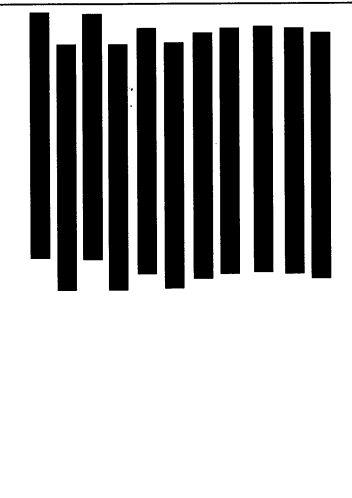
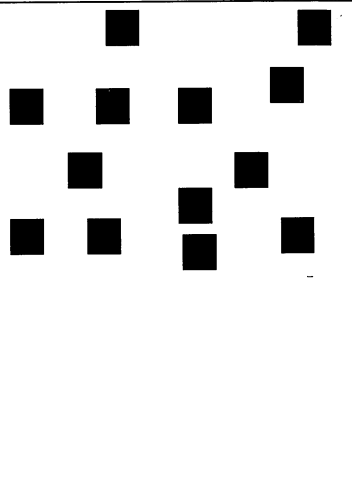
1. I can use concrete models to represent whole numbers.



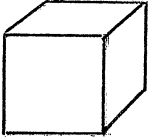



## Unit 1 - Task #5

### Part 1 Continued:

3. Build the following number using your base-ten blocks. 1,323

Thousands	Hundreds	Tens	Ones
			

Use place value blocks to show this value another way. Record your work on the chart below.

Thousands	Hundreds	Tens	Ones
			

I Can Statements:

1. I can use concrete models to represent whole numbers.

## Unit 1 - Task #5

**Part 2:** (Answers may vary depending on how students rounded.)  
Comerica Park has a seating capacity of 41,782 people. Pontiac Silverdome can seat 38,529 more people than Comerica Park.

- a) Estimate the seating capacity for Pontiac Silverdome. Explain how you estimated.

My estimate for the seating capacity of the Pontiac Silverdome is 80,300. To estimate, I rounded to the nearest hundred. I rounded 41,782 to 41,800 and then I rounded 38,529 to 38,500. I added 38,500 to 41,800 because it says the Silverdome has 38,529 more people than Comerica Park.

(Students may have rounded to the nearest thousand or ten thousand so check for reasonableness.)

- b) What is the seating capacity for the Pontiac Silverdome? Explain your thinking.

The actual seating capacity for the Pontiac Silverdome is 80,311 so my estimate of 80,300 was reasonable.

I Can Statements:

1. I can check to see if my answer is reasonable using estimation strategies.
2. I can perform operations with whole numbers within 1,000,000.

## Unit 1 - Task #6

In order to add  $457 + 275$ , Mark experimented with the following strategies.

<u>Strategy #1</u>	<u>Strategy #2</u>	<u>Strategy #3</u>	<u>Strategy #4</u>
$  \begin{array}{r}  400+50+7 \\  + 200+70+5 \\  \hline  7+5 = 12 \\  50+70 = 120 \\  400+200 = 600 \\  \\  12 = 10 + 2 \\  120 = 100 + 20 \\  + 600 = 600 \\  \hline  = 700 + 30 + 2 = 732  \end{array}  $ <p>partial sums (place value)</p>	$  \begin{array}{r}  457 \\  +275 \\  \hline  7 + 5 = 12 \\  50 + 70 = 120 \\  400 + 200 = 600 \\  \\  12 + 120 + 600 = 732  \end{array}  $ <p>partial sums</p>	$  \begin{array}{r}  457 \\  + 275 \\  \hline  12 + 120 + 600 = 732  \end{array}  $	$  \begin{array}{r}  11 \\  457 \\  +275 \\  \hline  732  \end{array}  $ <p>standard algorithm</p>

1. Explain each of his strategies. How are they the same? How are they different?

With partial sums, the addends are being broken down into its place value and then add the numbers together. For the algorithm, you begin by adding the ones and then move to the left. The strategies are similar because they are determined by place value. They are different because the algorithm does not require the numbers to be decomposed.

2. In Strategy #4, what do the 1's on top represent?

The ones represent the regrouping of the tens and hundreds.

3. Which strategy is the most efficient? Why?

Using the standard algorithm is the most efficient strategy because it requires less time and effort than breaking down (or decomposing) each number into its place value and then adding.

I Can Statements:

1. I can add whole numbers within 1,000,000.

## Unit 1 - Task #7

### Part 1:

Comerica Park has a seating capacity of 41,782 people. The Palace of Auburn Hills can seat 17,506 less people than Comerica Park.

- a) Estimate the seating capacity for the Palace of Auburn Hills. Explain how you estimated.

My estimate for the seating capacity of the Palace of Auburn Hills is 24,300. To estimate, I rounded to the nearest hundred. I rounded 41,782 to 41,800 and then I rounded 17,506 to 17,500. I subtracted 17,500 from 41,800 because it says the Palace has 17,506 less people than Comerica Park. (Students may have chosen to round to the nearest thousand or ten thousand so check for reasonableness. Remind them that rounding to the nearest hundred will be more accurate.)

- b) What is the seating capacity for the Palace of Auburn Hills? Explain your thinking.

The actual seating capacity of the Palace of Auburn Hills is 24,276 so my estimate of 24,300 is reasonable.

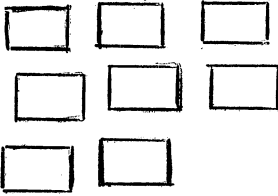

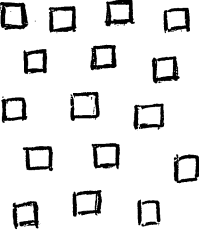
I Can Statements:

1. I can check to see if my answer is reasonable using estimation strategies.
2. I can perform operations with whole numbers within 1,000,000.

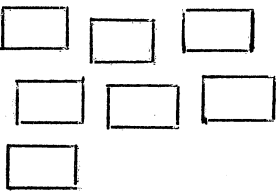
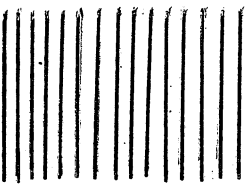
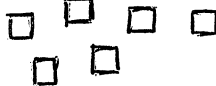
## Unit 1 - Task #7

### Part 2:

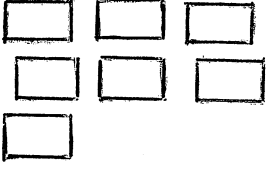
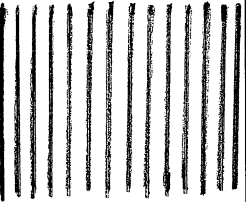
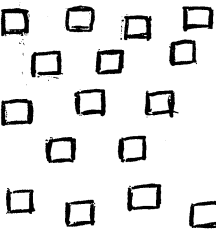
1. "To work out  $856 - 138$ , Jane rearranges 856 as  $800 + 40 + 16$ . Why does she do this?" Use base-ten blocks to explain.

Thousands	Hundreds	Tens	Ones
			

2. "To work out  $856 - 162$ , Jane rearranges 856 as  $700 + 150 + 6$ . Why does she do this?" Use base-ten blocks to explain.

Thousands	Hundreds	Tens	Ones
			

3. "To work out  $856 - 168$ , Jane rearranges 856 as  $700 + 140 + 16$ . Why does she do this?" Use base-ten blocks to explain.

Thousands	Hundreds	Tens	Ones
			

In each of the problems, Jane has to regroup either the ones or the tens (or both). That is why she rearranged the numbers.

I Can Statements:

1. I can subtract whole numbers within 1,000,000.



## Unit 1 - Task #8

Find the missing digits on the following problems and explain your strategy.

a.)

$$\begin{array}{r} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ 5 \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ + \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ \hline 9 \phantom{0} \phantom{0} \phantom{0} \phantom{0} \end{array}$$

b.)

$$\begin{array}{r} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ - \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ \hline \phantom{0} \phantom{0} \phantom{0} \phantom{0} \end{array}$$

I Can Statements:

1. I can add whole numbers within 1,000,000.
2. I can subtract whole numbers within 1,000,000.