



Victor 108 Calculator
Teacher's Guide

Introduction to the Victor 108 Teacher's Guide

The Electronic Educational Material is Eco-Friendly. Exercises can be downloaded and printed locally or shown on a projector. Please only print the exercises that are needed.

The Victor 108 is a basic calculator with addition, subtraction, multiplication, division, square root, percent, and memory keys. The Victor 108 is also dual powered and features a huge easy-to-read LCD display with extra large 14mm digits.

The Teacher's Guide is designed to assist you in teaching basic mathematics to students with the Victor 108.

When using the Teacher's Guide, keep the following in mind:

- Each lesson has an outline with the goal, teaching materials needed, student materials needed, new keys introduced, and notes to maximize the effectiveness of each exercise.
- Each lesson contains at least one Student Worksheet for students to practice using the new key introduced. If the worksheet is not appropriate for the grade level, substitute the worksheet with your own examples.
- Each lesson is independent of the others to allow room for flexibility.



For the limited use in classroom instructions, Victor Technology grants unlimited web-access and permission to reproduce the enclosed transparencies and student worksheets.

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Lesson 1: Learning the Victor 108 Calculator

Overview	Familiarize students with the calculator.
Teacher Materials	“Learning the Victor 108 Calculator” transparency, red transparency markers.
Student Materials	Pencil, red crayons, “Victor 108 Calculator” worksheet, calculator
Key Introduced	ON/C
Teaching Notes	Distribute the calculators.

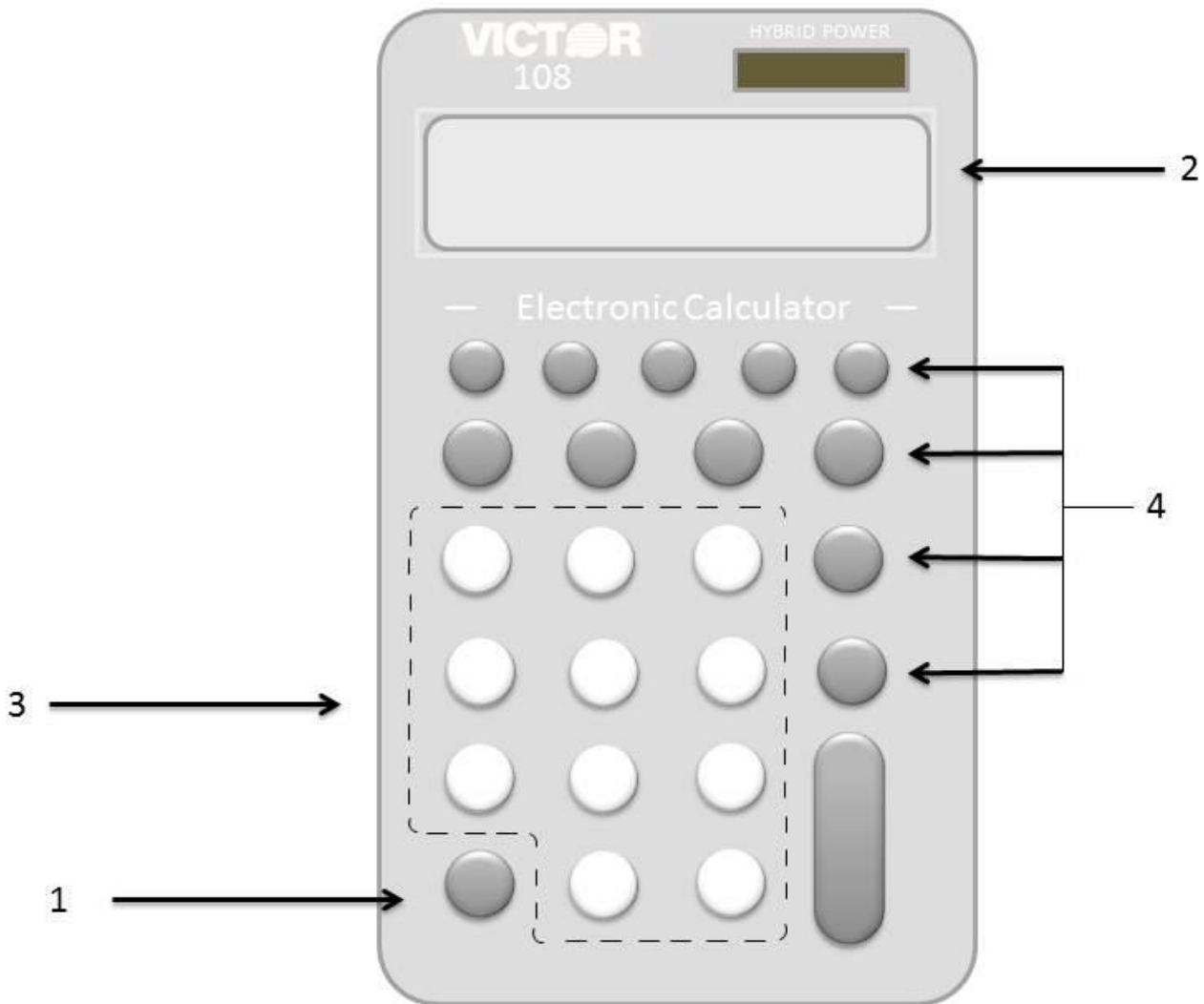
Use the transparency to discuss the keys and display of the Victor 108. Ask students to follow along on their worksheet. The ON/C key (1) turns the calculator on and clears the display. Write “ON/AC” on the appropriate key and ask the students to do the same. Press the ON/C key to turn the calculator on.

Show the students the location of the display (2). Ask what is showing in the display. Write a zero and a decimal point in the display. Ask the students to do the same.

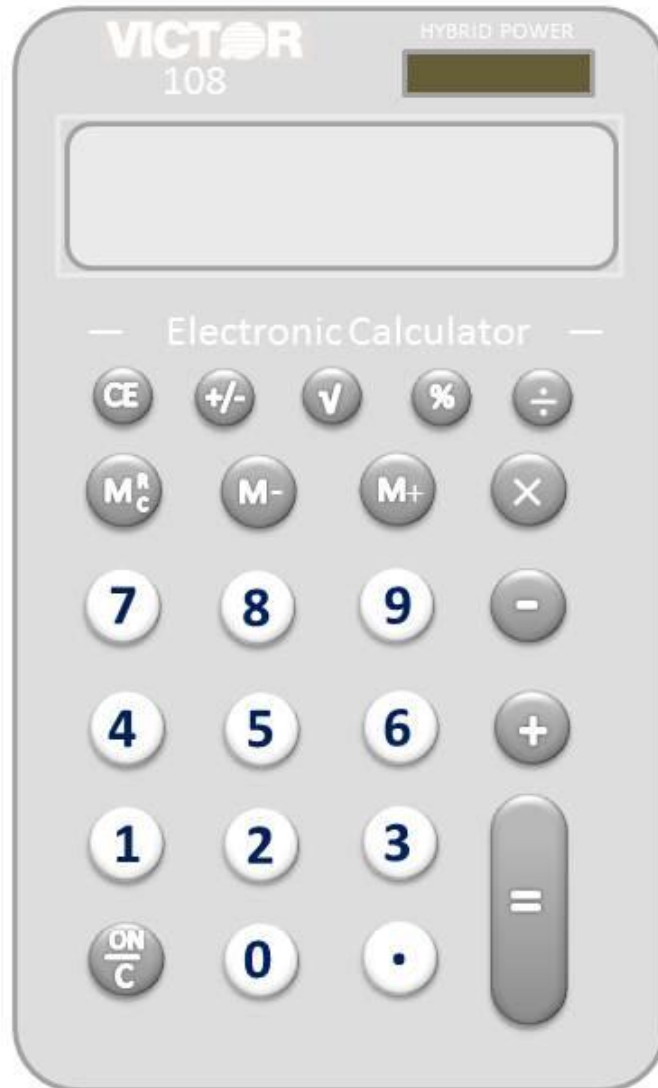
Ask students to write the numbers on the number keys (3) as you do the same. Press a number key to show how the number shows on the display.

Ask students to write the math operations (\div , \times , $-$, $+$) on the math operation keys (4).

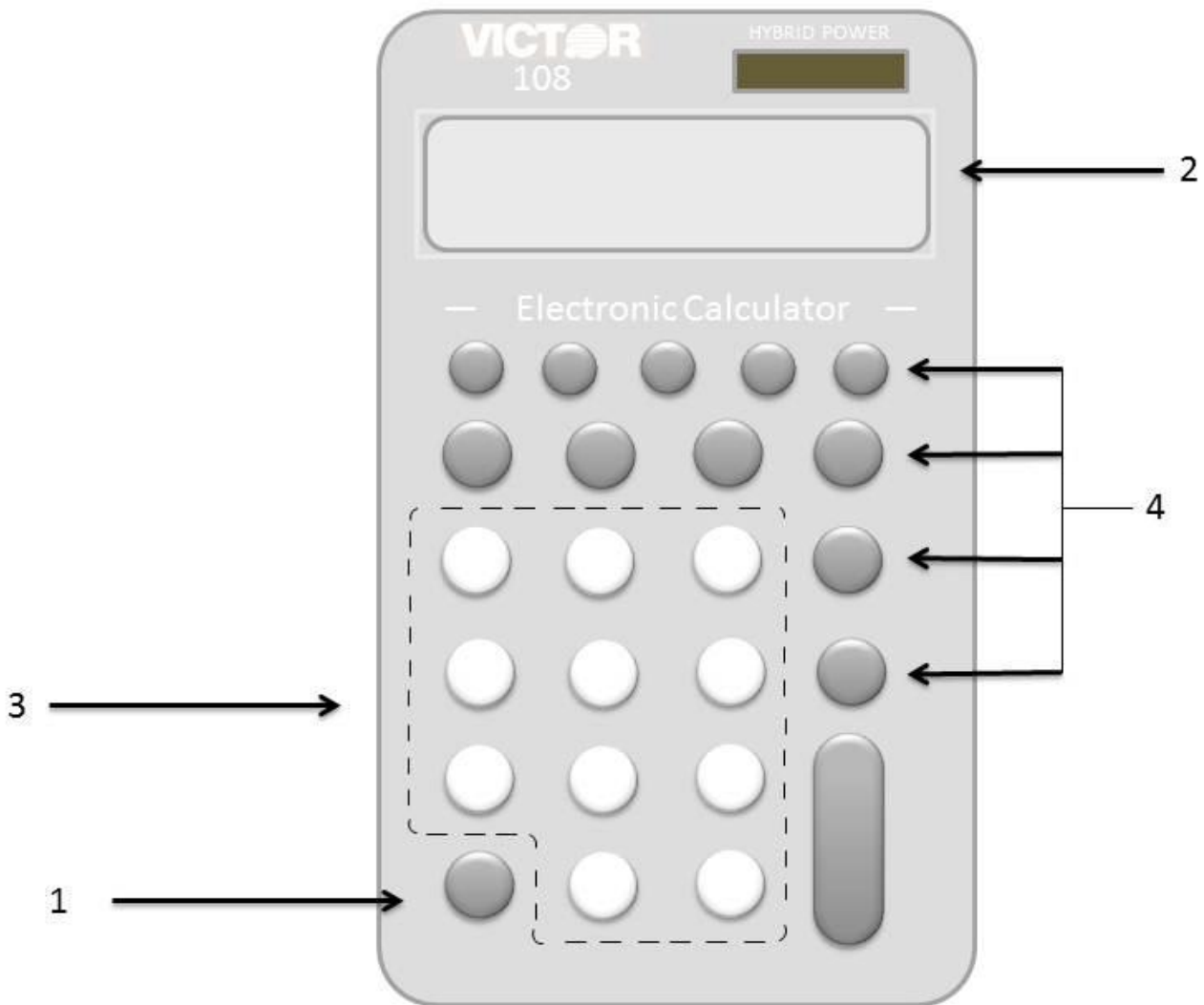
Learning the Victor 108 Calculator



Victor 108 Calculator



Learning the Victor 108 Calculator



Lesson 2: Using the Victor 108 Calculator

Overview	Use the calculator to enter and view numbers.
Teacher Materials	“Victor 108 Calculator” transparency.
Student Materials	Calculator, “Calculator Battle” worksheet, “Calculator Battle Score Sheet”, pencil.
Keys Used	1 – 9, <input type="text" value="ON/C"/>
Teaching Notes	<p>Distribute the calculators.</p> <p>Ask the students to press the <input type="text" value="ON/C"/> key.</p> <p>Ask the students to press the “1” and “9” keys to enter the number “19”. Ask “How do you clear the number 19 from the display”? Answer: press the <input type="text" value="ON/C"/> key</p> <p>To play “Calculator Battle”, pair up the students. Explain the following game rules:</p> <ul style="list-style-type: none">➤ Cut out the Calculator Battle cards (one set for each pair of students).➤ Mix the cards and place face down in one pile.➤ Student A draws a card and enters the number on their calculator.➤ Student B draws a card and enters the number on their calculator.➤ The students compare the displays. The student with the largest number scores a hit and enters “1” on the score sheet.➤ Both students press the <input type="text" value="ON/C"/> key.➤ The game continues until all cards are gone. The player with the most hits wins.

Calculator Battle

2	5	1
7	6	9
8	4	3

Calculator Battle Score Sheet

Student A Name:	Student B Name:
Hits	Hits

Lesson 3: Addition

Overview	Use the calculator to add numbers.
Teacher Materials	“Addition” and “Correcting Wrong Entries” transparencies.
Student Materials	Pencil, Calculator, and “Calculator Connections” worksheet.
Keys Introduced	+, CE
Teaching Notes	<p>Display the “Addition” transparency. Ask the students to press the buttons as illustrated.</p> <p>Display the “Correcting Wrong Entries” transparency. Ask the students to press the buttons as illustrated.</p> <p>The “Calculator Connections” worksheet provides additional practice. Ask students to solve each addition problem with the calculator and connect the box with the correct answer by drawing a line.</p>

Addition

$$1 + 2 = ?$$
$$1 + 3 + 5 = ?$$

Press these buttons:

ON/C

1 +

2

=

The calculator shows:

0.

1.

2.

3.

ON/C

1 +

3

+

5

=

0.

1.

3.

4.

5.

9.

Correcting Wrong Entries

$$6 + 3 = ?$$

Press these buttons:

ON/C

6 +

2

CE

3

=

The calculator shows:

0.

6.

2.

0.

3.

9.

Calculator Connections

Add the numbers in the boxes on the left side of the page. Draw a line to the box on the right side with the correct answer.

$$\begin{array}{r} 34 \\ + 41 \\ \hline \end{array}$$

76

$$\begin{array}{r} 13 \\ + 12 \\ \hline \end{array}$$

93

$$\begin{array}{r} 1 \\ + 19 \\ \hline \end{array}$$

75

$$\begin{array}{r} 72 \\ + 21 \\ \hline \end{array}$$

77

$$\begin{array}{r} 67 \\ + 9 \\ \hline \end{array}$$

33

$$\begin{array}{r} 47 \\ + 33 \\ \hline \end{array}$$

80

$$\begin{array}{r} 3 \\ + 74 \\ \hline \end{array}$$

25

$$\begin{array}{r} 11 \\ + 22 \\ \hline \end{array}$$

20

Lesson 4: Subtraction

Overview	Use the calculator to subtract numbers.
Teacher Materials	“Subtraction” transparency.
Student Materials	Pencil, Calculator, and “Calculator Connections II” and “Big Number Math” worksheets.
Keys Introduced	- (minus key)
Teaching Notes	Display the “Subtraction” transparency. The “Calculator Connections” worksheet provides additional practice. Ask students to solve each subtraction problem with the calculator and connect the box with the correct answer by drawing a line.

Subtraction

$$9 - 5 = ?$$
$$8 - 1 - 2 = ?$$

Press these buttons:

ON/C

9 -

5

=

The calculator shows:

0.

9.

5.

4.

ON/C

8 -

1

-

2

=

0.

8.

1.

7.

2.

5.

Calculator Connections II

Subtract the numbers in the boxes on the left side of the page. Draw a line to the box on the right side with the correct answer.

$$\begin{array}{r} 186 \\ - 22 \\ \hline \end{array}$$

$$121$$

$$\begin{array}{r} 54 \\ - 51 \\ \hline \end{array}$$

$$88$$

$$\begin{array}{r} 99 \\ - 11 \\ \hline \end{array}$$

$$164$$

$$\begin{array}{r} 222 \\ - 11 \\ \hline \end{array}$$

$$211$$

$$\begin{array}{r} 677 \\ - 556 \\ \hline \end{array}$$

$$3$$

$$\begin{array}{r} 69 \\ - 42 \\ \hline \end{array}$$

$$27$$

$$\begin{array}{r} 32 \\ - 18 \\ \hline \end{array}$$

$$26$$

$$\begin{array}{r} 55 \\ - 29 \\ \hline \end{array}$$

$$14$$

Big Number Math

Use your calculator to subtract the big numbers in the boxes and write down the answers. Circle the biggest answer.

$$\begin{array}{r} 72,456 \\ -51,432 \\ \hline \end{array}$$

$$\begin{array}{r} 98,744 \\ -10,221 \\ \hline \end{array}$$

$$\begin{array}{r} 189,456 \\ -10,432 \\ \hline \end{array}$$

$$\begin{array}{r} 5,687 \\ -3,216 \\ \hline \end{array}$$

$$\begin{array}{r} 984,300 \\ -213,498 \\ \hline \end{array}$$

$$\begin{array}{r} 676,345 \\ -99,999 \\ \hline \end{array}$$

$$\begin{array}{r} 780,780 \\ -175,175 \\ \hline \end{array}$$

$$\begin{array}{r} 54,893 \\ -55,221 \\ \hline \end{array}$$

Lesson 5: Repetitive Subtraction and Addition

Overview	Use the calculator to subtract or add repetitive numbers using the constant function.
Teacher Materials	“Repetitive Subtraction and Addition” and “Fastest Fingers” transparencies.
Student Materials	Pencil, Calculator, and “Constant Calculations” worksheet.
Keys Introduced	Constant function using the $\boxed{=}$ Key.
Teaching Notes	<p>Ask your students to enter 10 on the calculator and add 10 to the total every time you snap your fingers. Snap your fingers 4 times and compare the answers from several students (the answer should be 50).</p> <p>Tell the students how the calculator stores the last command and number entered. This is called the constant function. The constant function helps reduce mistakes and save time when you must subtract, add, divide, or multiply the same number many times.</p> <p>Ask your students to again enter 10 on the calculator and add 10 every time you snap your fingers. Snap your fingers 4 times and compare the answers.</p> <p>Note: The constant is removed from memory when the $\boxed{\text{ON/AC}}$ button is pushed.</p> <p>Use the “Fastest Fingers” transparency to play a fun game that reinforces the constant function.</p> <p>Use the “Constant Calculations” worksheet for practice.</p>

Repetitive Subtraction and Addition

$$15 - 3 - 3 - 3 = ?$$

$$6 + 2 + 2 + 2 = ?$$

Press these buttons:

ON/C

15 -

3 =

=

=

The calculator shows:

0.

15.

12.

9.

6.

ON/C

6 +

2 =

=

=

0.

6.

8.

10.

12.

Fast Fingers

Enter $500 + 5 =$ on your calculator. When the teacher says “Go” add one to your calculator as many times as you can until the teacher says “stop”.

The student with the largest number has the fastest fingers.



Winning total: _____

Name of Student with the Fastest Fingers

Constant Calculations

Use the $\boxed{=}$ key to work these constant calculations.

1. $94 - 6 - 6 - 6 =$ _____

2. $945 + 12 + 12 + 12 =$ _____

3. $543 - 10 - 10 - 10 - 10 =$ _____

4. $345 + 22 + 22 + 22 + 22 =$ _____

5. $27 - 3 - 3 - 3 - 3 - 3 =$ _____

6. $45 + 5 + 5 + 5 + 5 + 5 =$ _____

7. $1000 - 100 - 100 - 100 - 100 =$ _____

8. $2000 + 50 + 50 + 50 + 50 + 50 =$ _____

9. $948 - 8 - 8 - 8 - 8 - 8 - 8 =$ _____

10. $604 + 4 + 4 + 4 + 4 + 4 + 4 =$ _____

11. $9987 - 3 - 3 - 3 - 3 - 3 - 3 =$ _____

12. $100 + 9 + 9 + 9 + 9 + 9 + 9 =$ _____

Lesson 6: Multiplication

Overview	Use the calculator to multiply numbers.
Teacher Materials	“Multiplication” and “Multiplication Mountain Answer Key”, “Multiplying Multiple Numbers”, and “Repetitive Multiplication” transparencies.
Student Materials	Pencil, Calculator, and “Multiplication Mountain”, “Multiplication Calculator Battle”, and “Calculator Connections III” worksheet.
Keys Introduced	<input type="checkbox"/>
Teaching Notes	<p>Display the “Multiplication” transparency. Ask the students to follow along with you as you discuss the exercise.</p> <p>The “Multiplication Mountain” worksheet provides additional practice. Ask students to solve each multiplication problem with the calculator and fill in the illustration.</p> <p>To play “Multiplication Calculator Battle”, pair up the students. Explain the following game rules:</p> <ul style="list-style-type: none">➤ Cut out the Multiplication Calculator Battle cards (one set for each pair of students).➤ Mix the cards and place face down in one pile.➤ Student A draws two cards and multiplies the numbers on their calculator.➤ Student B draws two cards and multiplies the numbers on their calculator.➤ The students compare the displays. The student with the largest number scores a hit and enters “1” on the score sheet.➤ Both students press the <input type="checkbox"/> ON/C key.➤ The game continues until all cards are gone. The player with the most hits wins.➤ To extend the game, mix the cards and start again <p>The “Calculator Connections III” worksheet provides additional practice. Ask students to solve each multiplication problem with the calculator and connect the box with the correct answer by drawing a line.</p>

Multiplication

$$6 \times 8 = ?$$
$$43 \times 5 = ?$$

Press these buttons:

ON/C

6 X

8

=

The calculator shows:

0.

6.

8.

48.

ON/C

43 X

5

=

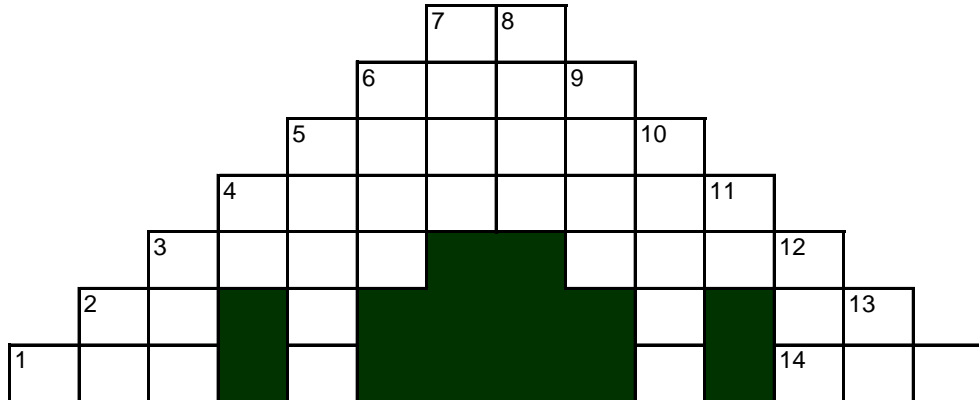
0.

43.

5.

215.

Multiplication Mountain



Across

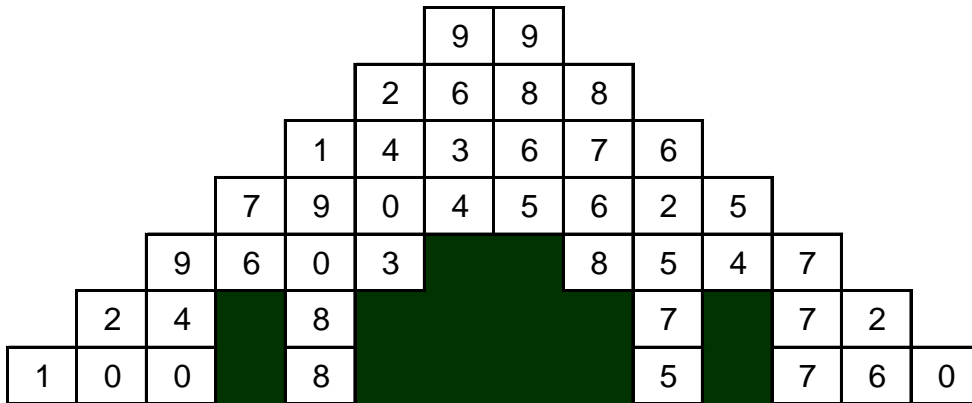
- 1 $10 \times 10 =$ _____
- 2 $6 \times 4 =$ _____
- 3 $3 \times 3,201 =$ _____
- 4 $25 \times 3,161,825 =$ _____
- 5 $156 \times 921 =$ _____
- 6 $48 \times 56 =$ _____
- 7 $11 \times 9 =$ _____
- 14 $19 \times 40 =$ _____

Down

- 2 $5 \times 4 =$ _____
- 3 $47 \times 20 =$ _____
- 4 $19 \times 4 =$ _____
- 5 $16 \times 1,193 =$ _____
- 6 $27 \times 89 =$ _____
- 7 $2 \times 4,817 =$ _____
- 8 $1,973 \times 5 =$ _____
- 9 $32 \times 274 =$ _____
- 10 $2,503 \times 25 =$ _____
- 11 $27 \times 2 =$ _____
- 12 $111 \times 7 =$ _____
- 13 $13 \times 2 =$ _____

Multiplication Mountain

Answer Key



Multiplying Multiple Numbers

$$6 \times 8 \times 2 = ?$$

Press these buttons:

ON/C

6 X

8

X

2

=

The calculator shows:

0.

6.

8.

48.

2.

96.

Repetitive Multiplication

$$4 \times 2 = ?$$

$$4 \times 4 = ?$$

$$4 \times 6 = ?$$

$$4 \times 8 = ?$$

Press these buttons:

ON/C

4 X

2

=

4

=

6

=

8

=

The calculator shows:

0.

4.

2.

8.

4.

16.

6.

24.

8.

32.

Multiplication Calculator Battle

12	51	17
23	48	9
37	38	39
65	42	15

Multiplication Calculator Battle Score Sheet

Student A Name:	Student B Name:
Hits	Hits

Calculator Connections III

Multiply the numbers in the boxes on the left side of the page. Draw a line to the box on the right side with the correct answer.

$$\begin{array}{r} 32 \\ \times 4 \\ \hline \end{array}$$

160

$$\begin{array}{r} 12 \\ \times 35 \\ \hline \end{array}$$

627

$$\begin{array}{r} 8 \\ \times 20 \\ \hline \end{array}$$

128

$$\begin{array}{r} 57 \\ \times 11 \\ \hline \end{array}$$

144

$$\begin{array}{r} 72 \\ \times 2 \\ \hline \end{array}$$

420

$$\begin{array}{r} 81 \\ \times 4 \\ \hline \end{array}$$

2,816


$$\begin{array}{r} 110 \\ \times 5 \\ \hline \end{array}$$

324

$$\begin{array}{r} 64 \\ \times 44 \\ \hline \end{array}$$

550

Lesson 7: Division

Overview	Use the calculator to divide numbers.
Teacher Materials	“Two Methods for Writing Division Problems”, “Division”, and “Repetitive Division” transparencies.
Student Materials	Pencil, Calculator, and “Calculator Connections IV” worksheet.
Keys Introduced	
Teaching Notes	Display the transparencies. Ask the students to follow along with you as you discuss the exercise.

The “Calculator Connections IV” worksheet provides additional practice. Ask students to solve each division problem with the calculator and connect the box with the correct answer by drawing a line.

Two Methods for Writing Division Problems

Hand Written Method

$$\begin{array}{r} \text{Quotient} \\ \downarrow \\ 8 \\ 6 \overline{) 48} \\ \text{Divisor} \quad \text{Dividend} \end{array}$$

Calculator Method

$$\begin{array}{c} \text{Divisor} \\ \downarrow \\ 48 \div 6 = 8 \\ \uparrow \quad \quad \uparrow \\ \text{Dividend} \quad \text{Quotient} \end{array}$$

Division

$$48 \div 6 = ?$$

$$81 \div 3 = ?$$

Press these buttons:

ON/C

48 ÷

6

=

The calculator shows:

0.

48.

6.

8.

ON/C

81 ÷

3

=

0.

81.

3.

27.

Repetitive Division

$$100 \div 4 = ?$$

$$40 \div 4 = ?$$

$$88 \div 4 = ?$$

$$52 \div 4 = ?$$

Press these buttons:

ON/C

100 \div

4

=

40

=

88

=

52

=

The calculator shows:

0.

100.

4.

25.

40.

10.

88.

22.

52.

13.

Calculator Connections IV

Divide the numbers in the boxes on the left side of the page. Draw a line to the box on the right side with the correct answer.

$$\begin{array}{r} 125 \\ \div 25 \\ \hline \end{array}$$

$$100$$

$$\begin{array}{r} 49 \\ \div 7 \\ \hline \end{array}$$

$$6$$

$$\begin{array}{r} 1000 \\ \div 10 \\ \hline \end{array}$$

$$5$$

$$\begin{array}{r} 66 \\ \div 11 \\ \hline \end{array}$$

$$7$$

$$\begin{array}{r} 72 \\ \div 2 \\ \hline \end{array}$$

$$36$$

$$\begin{array}{r} 888 \\ \div 4 \\ \hline \end{array}$$

$$110$$


$$\begin{array}{r} 550 \\ \div 5 \\ \hline \end{array}$$

$$222$$

$$\begin{array}{r} 147 \\ \div 21 \\ \hline \end{array}$$

$$7$$

Lesson 8: Division with Remainders

Overview	Use the calculator to divide numbers with remainders.
Teacher Materials	“Two Methods for Writing Division with Remainders”, “Division with Remainders”, “Repetitive Division with Remainders”, and “Calculating the Remainder”, transparencies.
Student Materials	Pencil, Calculator, and “Calculator Connections V” worksheet.
Keys Introduced	
Teaching Notes	<p>Display the transparencies. Ask the students to follow along with you as you discuss the exercise.</p> <p>Inform the students how the calculator displays the “remainder” as digits to the right of the decimal point. Use the “Calculating the Remainder” transparency to show how to determine the remainder. To find the remainder, multiply the number to the left of the decimal point by the divisor. Then subtract the result from the dividend to get the remainder.</p> <p>The “Calculator Connections V” worksheet provides additional practice. Ask students to solve each division problem with the calculator and connect the box with the correct answer by drawing a line.</p>

Two Methods for Writing Division with Remainder Problems

Hand Written Method

$$\begin{array}{r} \text{Quotient} \\ \downarrow \\ 3 \text{ R } 3 \\ \hline 7 \overline{) 24} \\ \text{Divisor} \qquad \text{Dividend} \end{array}$$

Calculator Method

$$\begin{array}{c} \text{Divisor} \\ \downarrow \\ 24 \div 7 = 3.42 \\ \uparrow \qquad \uparrow \\ \text{Dividend} \qquad \text{Quotient} \end{array}$$

Division with Remainders

$$48 \div 5 = ?$$

$$74 \div 6 = ?$$

Press these buttons:

ON/C

48 ÷

5

=

The calculator shows:

0.

48.

5.

9.6

ON/C

74 ÷

6

=

0.

74.

6.

12.3333333

Repetitive Division with Remainders

$$100 \div 6 = ?$$

$$40 \div 6 = ?$$

$$88 \div 6 = ?$$

$$52 \div 6 = ?$$

Press these buttons:

ON/C

100 ÷

6

=

40

=

88

=

52

=

The calculator shows:

0.

100.

6.

16.666666

40.

6.666666

88.

14.666666

52.

8.666666

Calculating the Remainder

$$76 \div 8 = ?$$

Press these buttons:

ON/C

76 ÷

8

=

The calculator shows:

0.

76.

8.

9.5

9 X

8

=

9

8.

72

76 -

72

=

76.

55.

4.

The remainder is 4.

Calculator Connections V

Divide the numbers in the boxes on the left side of the page. Draw a line to the box on the right side with the correct answer.

$$\begin{array}{r} 164 \\ \div 5 \\ \hline \end{array}$$

36.571428

$$\begin{array}{r} 32 \\ \div 9 \\ \hline \end{array}$$

8.8846153

$$\begin{array}{r} 256 \\ \div 7 \\ \hline \end{array}$$

12.75

$$\begin{array}{r} 23 \\ \div 12 \\ \hline \end{array}$$

3.5555555

$$\begin{array}{r} 231 \\ \div 26 \\ \hline \end{array}$$

2.5

$$\begin{array}{r} 20 \\ \div 8 \\ \hline \end{array}$$

32.8


$$\begin{array}{r} 51 \\ \div 4 \\ \hline \end{array}$$

1.9166666

$$\begin{array}{r} 147 \\ \div 21 \\ \hline \end{array}$$

7.

Lesson 9: Decimals

Overview	Use the calculator to add and subtract numbers with decimals.
Teacher Materials	“Decimals” transparency
Student Materials	Pencil, Calculator, “Calculator Connections VI” worksheet, “Estimation Exploration” worksheet, and “I Love Decimals” worksheet.
Keys Introduced	
Teaching Notes	<p>The “Calculator Connections VI” worksheet provides additional practice. Ask students to solve each math problem with the calculator and connect the box with the correct answer by drawing a line.</p>

The “Estimation Exploration” worksheet, is an additional way to have a fun time with decimals. It shows the difference between estimated and exact answers. It is another way to improve skills and learn more about decimals and using the calculator.

Decimals

$$2.5 + 5.3 = ?$$

$$7.4 - 6.1 = ?$$

Press these buttons:

ON/C

2.5 +

5.3

=

The calculator shows:

0.

2.5

5.3

7.8

ON/C

7.4 -

6.1

=

0.

7.4.

6.1

1.3

Calculator Connections VI

Add the Decimals in the boxes on the left side of the page. Draw a line to the box on the right side with the correct answer.

$$\begin{array}{r} 16.4 \\ + 5.3 \\ \hline \end{array}$$

$$1.5$$

$$\begin{array}{r} 3.2 \\ - 1.7 \\ \hline \end{array}$$

$$3.5$$

$$\begin{array}{r} 2.5 \\ + 7.1 \\ \hline \end{array}$$

$$21.7$$

$$\begin{array}{r} 2.3 \\ + 1.2 \\ \hline \end{array}$$

$$20.5$$

$$\begin{array}{r} 23.1 \\ - 2.6 \\ \hline \end{array}$$

$$13.8$$

$$\begin{array}{r} 9.7 \\ + 4.1 \\ \hline \end{array}$$

$$12.5$$

$$\begin{array}{r} 5.1 \\ - 1.4 \\ \hline \end{array}$$

$$9.6$$

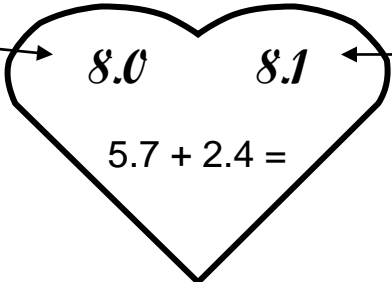
$$\begin{array}{r} 14.7 \\ - 2.2 \\ \hline \end{array}$$

$$3.7$$

I Love Decimals

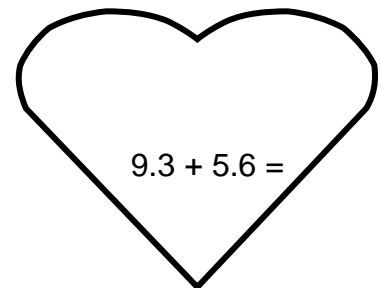
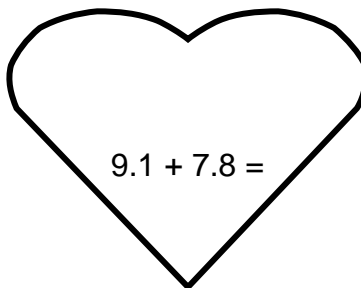
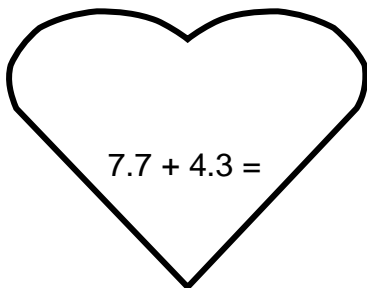
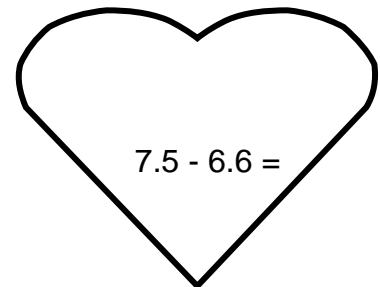
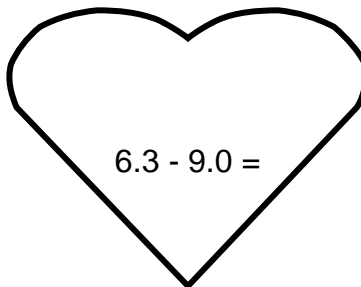
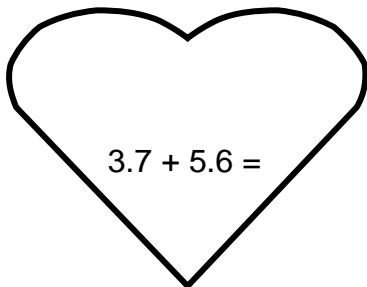
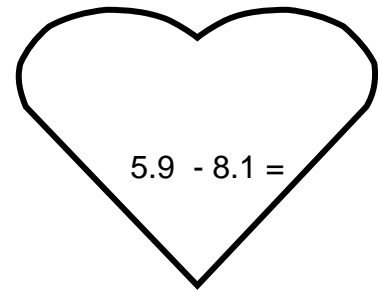
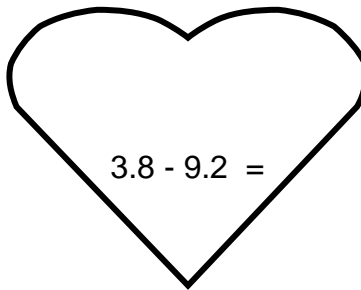
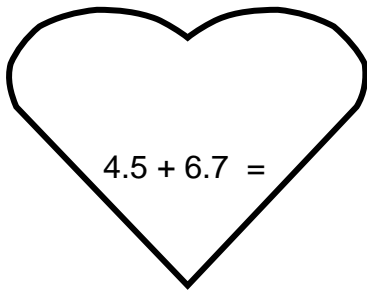
Estimate the answer for the math problems then use your calculator to check the answers. Write your estimates in the left arc of the hearts and the calculator answers in the right arcs.

Example:

Estimate →  → *Calculator*

8.0 *8.1*

$5.7 + 2.4 =$



Lesson 10: Memory

Overview	Use the calculator to add and subtract numbers and store the numbers in the calculator's memory
Teacher Materials	"Calculator Memory", "Adding Products with Memory", and "Find the Total Cost Using Memory", transparencies.
Student Materials	Pencil, Calculator, and "Million Memory Magic" worksheet.
Keys Introduced	MRC M+ M-
Teaching Notes	<p>Talk to the students about memory, and how it works on a calculator. The memory icon will appear on the calculator screen when a number has been stored. To view the stored number, press the MRC button once. MRC stands for "Memory Recall & Clear". If the MRC key is pressed twice, the memory is cleared.</p> <p>M+ Adds the displayed number to the memory of the calculator</p> <p>M- Subtracts the displayed number from the memory of the calculator</p> <p>MRC Displays the number from the memory onto the screen of the calculator</p> <p>MRC MRC Clears the memory</p> <p>The Million Memory Magic worksheet is for students to practice using the memory function of the calculator. It is to be done individually to test the skills learned in the lesson. Understanding this worksheet will show fulfillment and accomplishment with this lesson.</p> <p>You should ask students to press the MRC key twice before the exercise ... to make sure everyone starts with a clear memory.</p>

Calculator Memory

M+

Adds the displayed number to the memory of the calculator

M-

Subtracts the displayed number from the memory of the calculator

MRC

Recalls and displays the number in memory

MRC

MRC

Clears the memory

Adding Products with Memory

What is the total of the three equations below?

$$2 \times .86 = ?$$
$$3 \times 1.49 = ?$$
$$4 \times .52 = ?$$

Press these buttons:

ON/C MRC MRC
ON/C

$$2 \times .86 =$$

M+

$$3 \times 1.49 =$$

M+

$$4 \times .52 =$$

M+

MRC

The calculator shows:

0.

1.98

MEMORY 1.98

MEMORY 4.47

MEMORY 4.47.

MEMORY 2.08

MEMORY 2.08

MEMORY 8.53

Find the Total Cost Using Memory

3 \$5 Items
6 \$2 Items
\$13 Discount = ?

Press these buttons:

ON/C **MRC** **MRC**

ON/C

3 **x** **5** **=**

M+

6 **x** **2** **=**

M+

MRC

- **13** **=**

The calculator shows:

0.

15.

MEMORY 15

MEMORY 12

MEMORY 12

MEMORY 27

MEMORY 14

Million Memory Magic

Use the Memory function to quickly divide 1,000,000 by 1 through 10. Enter 1,000,000 into memory. Use the MRC key to recall the 1,000,000 value instead of re-entering 1,000,000 for each equation.

$$1,000,000 \div 1 =$$

$$1,000,000 \div 2 =$$

$$1,000,000 \div 3 =$$

$$1,000,000 \div 4 =$$

$$1,000,000 \div 5 =$$

$$1,000,000 \div 6 =$$

$$1,000,000 \div 7 =$$

$$1,000,000 \div 8 =$$

$$1,000,000 \div 9 =$$

$$1,000,000 \div 10 =$$

Lesson 11: Percents

Overview	Use the calculator for situations involving sales taxes, discounts, or other percent problems.
Teacher Materials	“Percents” and “More Percents” transparencies.
Student Materials	Pencil, Calculator, and “Would You Like To Own an Amusement Park?” worksheet.
Keys Introduced	<input style="border: 1px solid black; display: inline-block; width: 20px; height: 15px; vertical-align: middle;" type="text" value="%"/>
Teaching Notes	<p>Remember the <input style="border: 1px solid black; display: inline-block; width: 20px; height: 15px; vertical-align: middle;" type="text" value="%"/> key acts like the <input style="border: 1px solid black; display: inline-block; width: 20px; height: 15px; vertical-align: middle;" type="text" value="="/> key so <input style="border: 1px solid black; display: inline-block; width: 20px; height: 15px; vertical-align: middle;" type="text" value="="/> does not need to be pressed at any point when doing percents</p> <p>For the game where the students have to make up an Amusement Park and have to figure out what the discounted price with tax will be, is a way for the students to look at a real life situation. They use their new knowledge of percents to figure out the discounts that they one day might be using and then they will know how much money they are saving.</p>

Percents

\$3.70 - 12% discount =?
\$7.50 + 6% sales tax = ?

Press these buttons:

ON/C **ON/C**

3.70 **-**

12 **%**

7.50 **+**

6 **%**

The calculator shows:

0.

3.70

3.256

7.50

7.95

More Percents

\$4.90 - 15% discount=?
\$8.20 + 7% sales tax

Press these buttons:

ON/C ON/C

4.90 -

15 %

8.20 +

7 %

The calculator shows:

0.

4.90

4.165

8.20

8.774

Would you like to own an Amusement Park?
Decide what rides to offer and set the ticket price for each ride. Offer a 10% discount. Use 5% for the Tax rate and calculate the final price.

_____ 's Park

Name of Ride	<i>Twister</i>			
Original Cost of Ride	<i>\$10.00</i>			
% discount	<i>10%</i>			
Sale Price	<i>\$9.00</i>			
Sales Tax %	<i>5%</i>			
Final Cost	<i>\$9.45</i>			

Lesson 12: Interest

Overview	Use the % key to determine interest amounts for a loan.
Teacher Materials	“Simple Interest” and “Total with Interest” transparencies.
Student Materials	Pencil, Calculator, and “Interesting Ride” worksheet.
Keys Introduced	<input type="text" value="%"/>
Teaching Notes	<p>Remember the <input type="text" value="%"/> key acts like the <input type="text" value="="/> key so <input type="text" value="="/> does not need to be pressed at any point when doing percents</p> <p>The worksheet “Interesting Ride” is fun and interesting to students. Word problems that portray real life situations can better focus the mind and show how interest will one day affect the student.</p>

Simple Interest

\$750.00 at 13% =?

\$299.00 at 3% =?

Press these buttons:

ON/C **ON/C**

750 **x**

13 **%**

The calculator shows:

0.

750.

97.5

299 **x**

3 **%**

299.

8.97

Total with Interest

$$\$490 + 15\% = ?$$

$$\$820 + 7\% = ?$$

Press these buttons:

ON/C ON/C

490 +

15 %

820 +

7 %

The calculator shows:

0.

490.

563.5

820.

877.4

INTERESTing Ride

Hop aboard and get ready for the INTERESTing ride!!

Below are a few problems that are fun. Come along and enjoy the ride.

- ☺ Mr. Bob has a piggy bank that has \$300.00 in it. The piggy pays Mr. Bob 3% per year. How much interest will piggy pay Mr. Bob in the first year?


- ☺ Mrs. Bob has a jar full of \$3,500.00 all in pennies that is 350,000 pennies. Every year the jar pays Mrs. Bob 9% interest. How much money will the jar pay Mrs. Bob at the end of the year?

- ☺ Mr. and Mrs. Bob have a bank account for Little Bob their son. At the start of the year, they put a deposit of \$2,500.00. The bank pays a yearly interest of 6%. How much will Mr. and Mrs. Bob have at the end of the year?

- ☺ Sam, Little Bob's friend asks Little Bob for \$50 to buy ice cream for a month. Little Bob is smart and gives Sam the money with a fee of 2% interest. How much money total will Sam have to pay Little Bob at the end of the month?

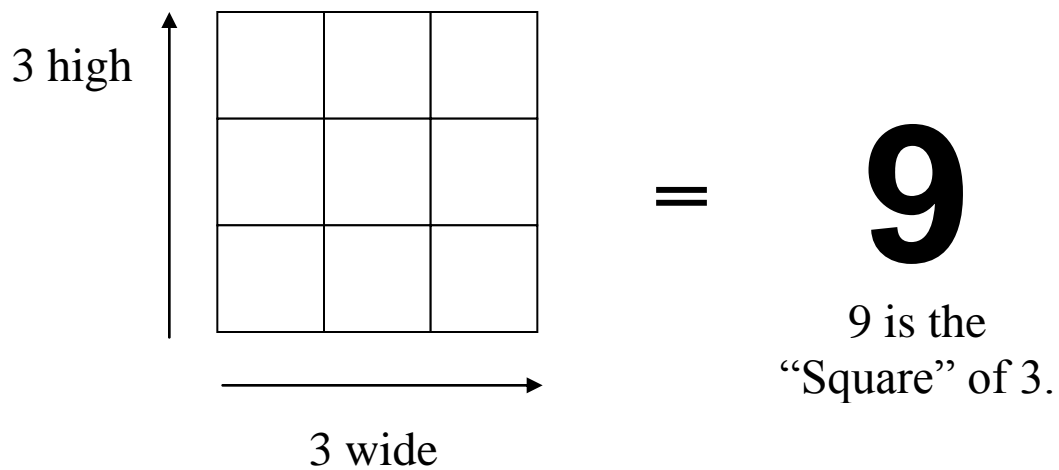
- ☺ Mr. Smith works with Mr. Bob, and they both need lunch, but Mr. Bob does not have money with him. Mr. Smith pays \$15 for Mr. Bob's lunch and says to pay him back in 4 days with 2% interest for everyday until he pays. How much money will Mr. Bob have to pay Mr. Smith total in 4 days?

Lesson 13: Square Roots and Squares

Overview	Use the calculator to determine the square and square root of numbers.
Teacher Materials	“Why Call it the “Square”, “Square Roots”, and “Squares” transparencies.
Student Materials	Crayons, Calculator, and “Square Grid” worksheet.
Keys Introduced	
Teaching Notes	<p>Remember to explain that Square roots and Squares are inverses of each other.</p> <p>Write the following equation on the board:</p> $10 \times 10 = 100$ <p>Show how 100 is the square of 10. Explain that 10 is the square root of 100.</p> <p>Provide copies of the “Square Grid” worksheet to students. Ask the students to draw colored boxes representing the Square of 1, 2, and 4.</p>

Why Call it the “Square”?

When small squares are used to make a larger square you can see why we use the term “Square”.



3 is the “Square Root” of 9.

Square Roots

$$\sqrt{121} = ?$$

$$\sqrt{225} = ?$$

$$\sqrt{36} = ?$$

Press these buttons:

121

225

36

The calculator shows:

0.

11.

15.

6.

Squares

$$12^2 = ?$$
$$4^2 = ?$$

Press these buttons:

ON/C ON/C

12 \times 12

4 \times 4

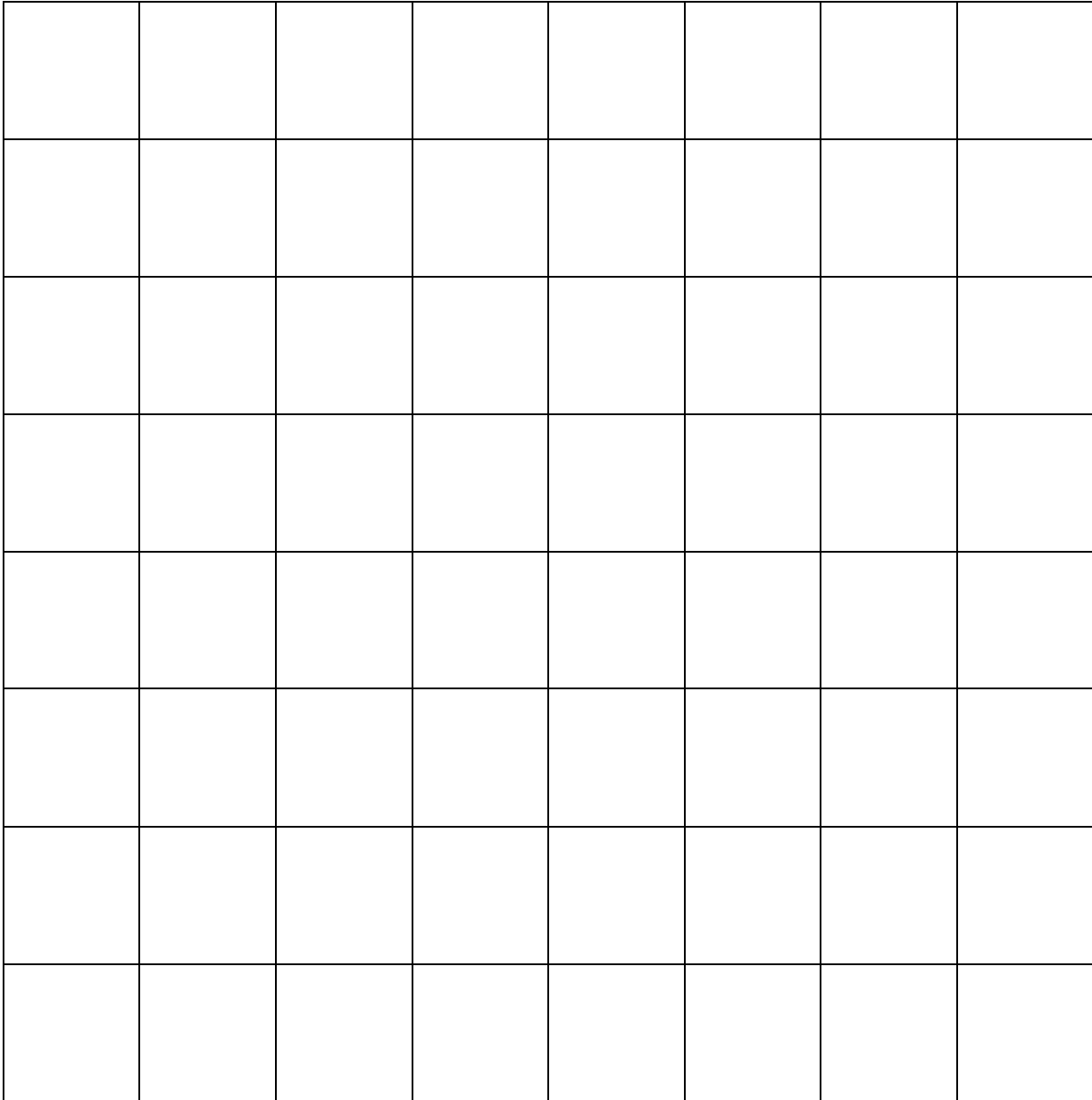
The calculator shows:

0.



144.

16.

Square Grid



Lesson 14: Adding Negative Numbers

Overview	Use the calculator to add negative numbers.
Teacher Materials	“Adding Negative Numbers”, and “Football Game” transparencies. “Play Cards” cutouts.
Student Materials	Pencil, Calculator, and Score Sheet.
Keys Introduced	
Teaching Notes	<p>Remember to explain that numbers can be positive and negative. Use a number line to illustrate that numbers to the left of 0 are negative and to the right are positive. Point out that the  key allows students to calculate negative numbers.</p> <p>The purpose of the football exercise is for the classroom to use their calculator to calculate the correct position on the field after several plays with positive and/or negative yardage.</p> <ul style="list-style-type: none">➤ Cut out the “Play Cards” and shuffle.➤ Use the Football Game transparency to show the football field.➤ Mark the 50 yard line on the transparency with a marker; this is where play will begin.➤ Call three students to the front of the class and have each of them select a “Play Card” from the deck.➤ Have each of the students read their card one at a time, while the rest of the classroom writes the result of each play on their “Score Sheet”. The 1st card read will be marked on the “Score Sheet” as 1st Down, the 2nd card will be 2nd Down, and the 3rd card will be 3rd down.➤ After the all three plays have been read, ask the classroom to calculate the Total Gain or Loss of that drive.➤ Use the football field transparency to mark the Total Gain or Loss. If a touchdown is scored, start over at the 50 yard line.➤ Call up three new students and continue to play until the score sheet is completed.

Adding Negative Numbers

$$5 + -10 = ?$$

$$8 + -15 = ?$$

Press these buttons:

ON/C

5 +

10 +/-

=

The calculator shows:

0.

5.

10.-

5.-

ON/C

8 +

15 +/-

=

0.

8.

15.-

7.-

Football Game

TOUCHDOWN	
10	10
20	20
30	30
40	40
50	50
40	40
30	30
20	20
10	10
TOUCHDOWN	

Score Sheet

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

1st Down: _____
2nd Down: _____
3rd Down: _____
Total Gain/Loss: _____

Play Cards

Your quarterback is sacked for a loss of 18 yards.

The defense is penalized 15 yards for a face mask. Gain 15 yards.

Your team is penalized 5 yards for a false start. Lose 5 yards.

Your running back runs for a 24 yard gain.

Your running back is stopped for a loss of 8 yards.

Your quarterback completes a 32 yard pass. Gain 32 yards.

Your wide receiver fumbles the ball for a loss of 27 yards.

Your wide receiver gains 9 yards on a reverse.

Your team is penalized 15 yards for unnecessary roughness. Lose 5 yards.

Your running back runs for a 4 yard gain.

Your team is penalized 10 yards for holding. Lose 5 yards.

The defense is penalized 17 yards for pass interference. Gain 17 yards.

Lesson 15: Subtracting Negative Numbers

Overview	Use the calculator to subtract negative numbers.
Teacher Materials	“Subtracting Negative Numbers” transparency.
Student Materials	Pencil, Calculator, “Calculator Connections VII”, and “Change in Temperature” worksheet.
Keys Introduced	<input type="checkbox"/> +/-
Teaching Notes	The “Calculator Connections VI” worksheet provides additional practice. Ask students to solve each math problem with the calculator and connect the box with the correct answer by drawing a line.

Provide copies of the “Change in Temperature” worksheet to students. Ask the students to calculate the difference between the record high and low temperature and find which State has the largest difference.

Subtracting Negative Numbers

$$40 - -10 = ?$$

$$12 - -19 = ?$$

Press these buttons:

ON/C

40 -

10 +/-

=

The calculator shows:

0.

40.

10.-

50.

ON/C

12 -

19 +/-

=

0.

12.

19.-

31.

Calculator Connections VII

Subtract the numbers in the boxes on the left side of the page. Draw a line to the box on the right side with the correct answer.

$$\begin{array}{r} 13 \\ - -62 \\ \hline \end{array}$$

$$146$$

$$\begin{array}{r} 78 \\ - -68 \\ \hline \end{array}$$

$$340$$

$$\begin{array}{r} 7 \\ - -6 \\ \hline \end{array}$$

$$20$$

$$\begin{array}{r} 321 \\ - -19 \\ \hline \end{array}$$

$$13$$

$$\begin{array}{r} 65 \\ - -31 \\ \hline \end{array}$$

$$190$$

$$\begin{array}{r} 115 \\ - -75 \\ \hline \end{array}$$

$$55$$

$$\begin{array}{r} 2 \\ - -18 \\ \hline \end{array}$$

$$75$$

$$\begin{array}{r} 39 \\ - -16 \\ \hline \end{array}$$

$$96$$

Change in Temperature

Use the $\boxed{+/-}$ key to calculate the difference. Which State has the largest difference in temperature?

State	High	Low	Difference
1. California	134°F	- 45°F	_____
2. Florida	109°F	- 2°F	_____
3. Minnesota	114°F	- 60°F	_____
4. Illinois	117°F	- 36°F	_____
5. Maine	105°F	- 50°F	_____
6. Utah	117°F	- 69°F	_____
7. Texas	120°F	- 23°F	_____
8. Alaska	100°F	- 80°F	_____
9. New York	108°F	- 57°F	_____
10. Nebraska	118°F	- 48°F	_____

_____ has the largest difference in temperature.