

## Mid-Point Math Check-ups 2009/10

Mid-point check-ups have been developed by teams of teachers from across the school division to assess **basic facts, computation and problem solving skills** at each grade level (one to nine) at the mid-point of the school year.

### **Purpose:**

The purpose of a division-wide mid-point check-up is to provide teachers with a **teacher-made** common assessment that can be discussed at the school level between grades and within PLC teams that have a math focus. These check-ups will provide a snapshot of where students are at the half-way point in the year in the three areas mentioned above. The professional discussion about the results and the sharing of successes and concerns are the key elements to the check-up.

Assessing these basic skills mid-way through the year allows time for re-emphasizing skills that are lacking and will give teachers opportunities to discuss with colleagues strategies for re-teaching and for effective opportunities for drill and practice.

Division-wide results will **not** be compiled. The results of these check-ups are for the teachers who are administering them. They will hopefully provide a common tool to generate discussion and professional dialogue around planning for the remainder of the school year. These check-ups should be administered in **January**. Principals will be asked to report the wider findings of the results as part of their annual Learning Improvement Plan. There is an attached document which teachers may find useful to lead discussion at the school level or within PLC groups.

The check-up is divided into three components: basic facts, computation and problem solving skills. As part of the assessment, teachers will engage in an interview portion of the assessment with each student. These check-ups will likely take 2 sittings. No time limit has been placed on the time students are allowed to take to complete the assessment. Some questions may be seen as a “post-test” assessment, while other questions may represent a “pre-test” for skills to be taught in the 2<sup>nd</sup> half of the year.

Note that all of the **interview questions** do not have to be done by all of the students. Teachers may choose how many students do each interview question.

Questions about the assessment can be directed towards Brian, Ron or any of the math catalyst teachers.

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**Grade 4 Mid-Point  
Math Check-up  
(Teacher Copy)**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Please note that the last page of this check-up will be done with your teacher in the form of an **interview**.

Tell me what you thought! After each section, circle a happy or sad face.  
If the question was easy, circle the smile!  
If the question was hard, circle the frown!



**PART 1 - Basic Facts and Computation (Oral)**

For oral questions, state question, give a 3 second pause and state question again with a 3 second pause.

**A. Oral Addition Facts**

1. \_\_\_\_\_ (4+3)
2. \_\_\_\_\_ (8+4)
3. \_\_\_\_\_ (6+5)
4. \_\_\_\_\_ (9+3)
5. \_\_\_\_\_ (7+7)
6. \_\_\_\_\_ (5+4)
7. \_\_\_\_\_ (6+6)
8. \_\_\_\_\_ (9+8)
9. \_\_\_\_\_ (7+6)
10. \_\_\_\_\_ (8+8)

**B. Oral Subtraction Facts**

1. \_\_\_\_\_ (8-6)
2. \_\_\_\_\_ (9-3)
3. \_\_\_\_\_ (16-9)
4. \_\_\_\_\_ (14-7)
5. \_\_\_\_\_ (19-10)
6. \_\_\_\_\_ (10-6)
7. \_\_\_\_\_ (17-9)
8. \_\_\_\_\_ (15-8)
9. \_\_\_\_\_ (12-7)
10. \_\_\_\_\_ (13-5)

**C. Oral Multiplication Facts**

- |                  |                   |
|------------------|-------------------|
| 1. _____ (2 × 3) | 6. _____ (3 × 3)  |
| 2. _____ (3 × 4) | 7. _____ (4 × 4)  |
| 3. _____ (5 × 6) | 8. _____ (7 × 8)  |
| 4. _____ (6 × 9) | 9. _____ (6 × 8)  |
| 5. _____ (4 × 5) | 10. _____ (5 × 5) |

(N4.3)



## D. Computation:

### Addition (N4.2)

$$\begin{array}{r} 1. \quad 558 \\ + 20 \\ \hline 578 \end{array}$$

$$\begin{array}{r} 2. \quad 5286 \\ + 3157 \\ \hline 8443 \end{array}$$



### Subtraction (N4.2)

$$\begin{array}{r} 1. \quad 68 \\ - 27 \\ \hline 41 \end{array}$$

$$\begin{array}{r} 2. \quad 271 \\ - 37 \\ \hline 234 \end{array}$$

$$\begin{array}{r} 3. \quad 2003 \\ - 167 \\ \hline 1836 \end{array}$$



### Multiplication (N4.3)

$$\begin{array}{r} 1. \quad 43 \\ \times 5 \\ \hline 215 \end{array}$$

$$\begin{array}{r} 2. \quad 60 \\ \times 3 \\ \hline 180 \end{array}$$

$$\begin{array}{r} 3. \quad 587 \\ \times 6 \\ \hline 3522 \end{array}$$



### Division (N4.5)

$$1. \quad 12 \div 3 = 4$$

$$2. \quad 36 \div 6 = 6$$

$$3. \quad 64 \div 8 = 8$$

$$4. \quad 14 \div 7 = 2$$

$$5. \quad 7 \overline{)53}$$

$7r4$



## Part 2 - Number Sense

1. Fill in the missing numbers in these sequences:

2, 4, 6, *8, 10, 12*

(P4.1)

1, 5, 3, 7, 5, 9, *7, 11, 9*     *add 4, minus 2*

2. Write these numerals from smallest to largest:

4 133    4 013    4 131    4300  
*3*        *1*        *2*        *4*

(N4.1)

3. Which number is closest to 800? How do you know?

80    797    808    899

(N4.1)

*✓ It is only three away from 800.*

4. Write 3 different pairs of numbers that have a sum of 10.

$$\underline{\quad} + \underline{\quad} = 10$$

$$\underline{\quad} + \underline{\quad} = 10$$

$$\underline{\quad} + \underline{\quad} = 10$$

(N2.2)

5. Please fill in the hidden digits:

$$\begin{array}{r} 47 \\ + 9 \square \\ \hline 1 \square 5 \end{array}$$

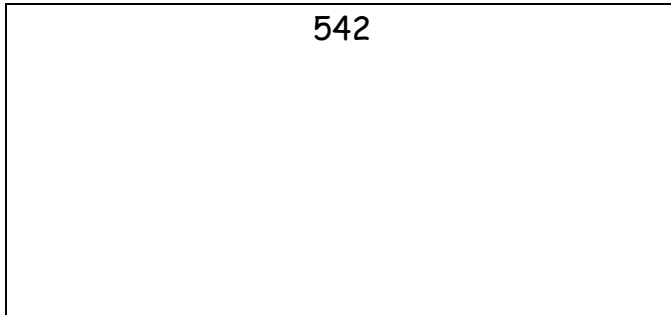
$$\begin{array}{r} \square 7 \square \square \square \\ 264 \\ + 303 \\ \hline 1299 \end{array}$$

(N4.2)

6. Draw a picture to show the value of this number:

(N4.1)

542



### Word Problems:

1. Create your own word problem for this equation.

(N4.2)  

$$8 + 3 + 7 = \underline{\hspace{2cm}}$$

2. Create your own word problem for this equation:

(N4.4)  

$$9 \times 3 = \underline{\hspace{2cm}}$$

3. Sam needs to buy a pen for 78 cents. He has 1 quarter, 1 dime and 3 pennies.  
How much more money does he need? **What strategy did you use?**

40 cents

(N4.2)  

4. There are 18 muffins and 4 people. (N4.5)

- a. How many whole muffins would each person get if they were distributed equally?

4 whole muffins



- b. If the left-overs were distributed equally, how much of a left-over would each person get?

$\frac{1}{2}$  each



**What strategy did you use?**

5. In a theatre there are 900 seats altogether. All the seats are colored either blue or red. If 420 people are sitting in the blue seats and 360 people are sitting in the red seats, how many seats have no one sitting in them?

**What strategy did you use?**

120 seats with no one in them.

(N4.2)

6. Sasha has 75 cents in quarters, dimes and nickels. *She has at least one of each type of coin.* What are the fewest number of coins she could have that would total 75 cents. **What strategy did you use? (See list or provide your own description)**

2 quarters, 2 dimes and 1 nickel

(N4.2)



## INTERVIEW QUESTIONS:

### A. Mental Math Questions:

Have the student tell you how they could calculate the following questions without the use of a pencil. Jot down the students' response on the separate sheet provided. The possible strategy listed is only one of many possible strategies, students may choose to use. Responses will tell you how students are able to break numbers down and put them back together.

Have the student record their answer on their sheet.

For this section, have  $\frac{1}{4}$  of the class do each section. So for a class of 20, five students would do the addition, five would do the subtraction, five the multiplication, and five would do the base ten. This section should be done with the **teacher**, not another adult.

#### SECTION A

##### Addition:

1.  $24 + 35 = \underline{\hspace{2cm}}$  (possible strategy...adding 24+30 and then adding 5)
2.  $58 + 9 = \underline{\hspace{2cm}}$  (possible strategy...change 9 to 10 and add...68 and take 1 away)
3.  $150 + 150 = \underline{\hspace{2cm}}$  (possible strategy...double the 15's to get 30 and add a zero)

(N4.2)

#### SECTION B (N4.2)

##### Subtraction:

1.  $40 - 27 = \underline{\hspace{2cm}}$  (possible strategy... starting at 27 and count up...ie: 27 +3 is 30, plus 10 more is 40)
2.  $450 - 49 = \underline{\hspace{2cm}}$  (possible strategy...change 49 to 50 and subtract and add 1)
3.  $120 - 90 = \underline{\hspace{2cm}}$  (possible strategy...12- 9 = 3, add a zero or count up by 10's)

## SECTION C

### Multiplication Facts:

If you forgot the answers to these times tables, how could you most quickly determine the answers to these questions?

1.  $5 \times 9 = \underline{\hspace{2cm}}$

2.  $6 \times 8 = \underline{\hspace{2cm}}$

(N4.3)

## SECTION D

### B. BASE TEN

Using base ten blocks, build a model and represent the answer to the following question. Put your answer in the blank provided:

$256 + 185 = \underline{\hspace{2cm}}$

(N4.1)

Name of student \_\_\_\_\_

Individual Student Response Sheet to Interview Questions

SECTION A

$24 + 35 = \underline{\hspace{2cm}}$

$58 + 9 = \underline{\hspace{2cm}}$

$150 + 150 = \underline{\hspace{2cm}}$

SECTION B

$40 - 27 = \underline{\hspace{2cm}}$

$450 - 49 = \underline{\hspace{2cm}}$

$120 - 90 = \underline{\hspace{2cm}}$

SECTION C

$5 \times 9 = \underline{\hspace{2cm}}$

$6 \times 8 = \underline{\hspace{2cm}}$

SECTION D

$256 + 185 = \underline{\hspace{2cm}} \text{ (BASE TEN)}$

