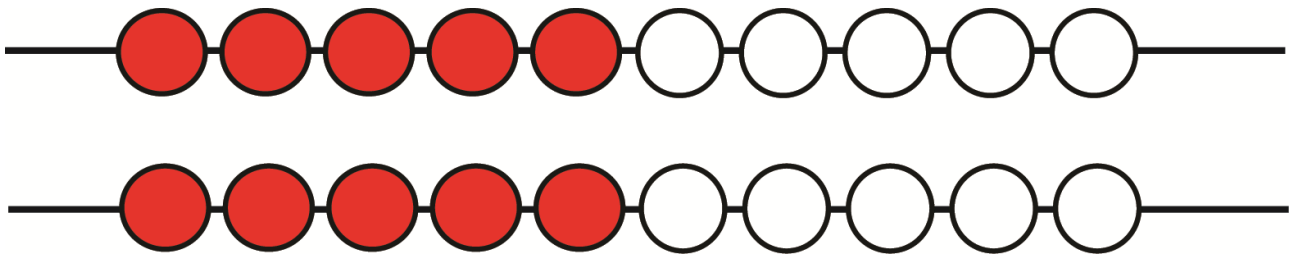
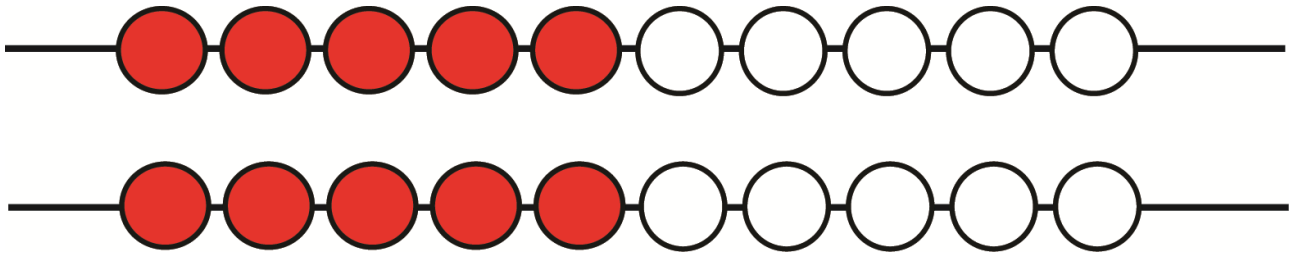
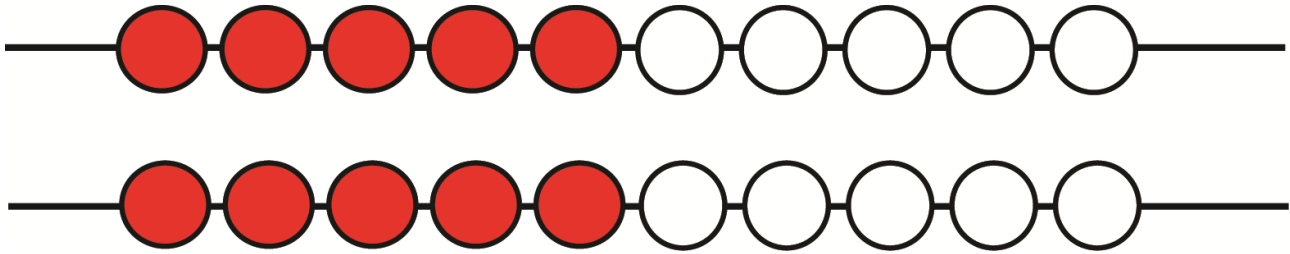
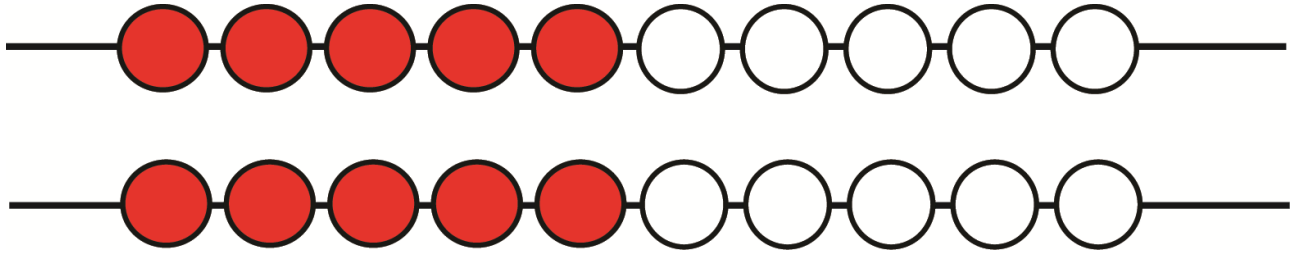


Introduction to the Revised Mathematics TEKS

FLUENCY ACTIVITIES
FOCUSING ON ADDITION
KINDERGARTEN - GRADE 7

Make Ten

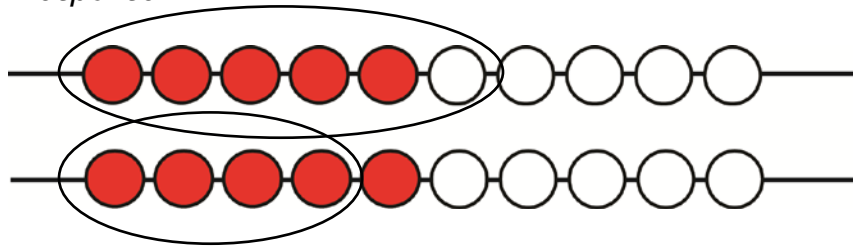


Kindergarten Fluency Activity - K(2) (1) The student is expected to compose and decompose numbers up to 10 with objects and pictures.

Teacher Directions:

1. Prompt the students to make a 10 on their rekenrek.
2. Prompt the students to circle the beads they used on the recording sheet.

Possible Response:



3. Prompt the students to record the numbers of beads they used to make 10.

Possible Response: 6 and 4 or 5 and 1 and 4

Teacher note: The different colors of the rekenrek beads make it possible for students to have more than two addends when making 10 (i.e., 5 red, 1 white, and 4 red).

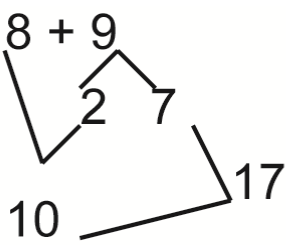
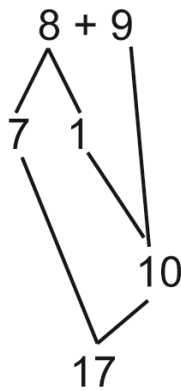
4. Repeat steps 1—3 to make the number 10 three different ways.
5. Prompt the students to share the different ways they represented the number 10.
6. Record and display the students' responses in the form of a number sentence.

Possible Response: $6 + 4 = 10$ or $5 + 1 + 4 = 10$

Flexible Facts

Sue has 8 red markers and 9 blue markers in her school bag. How many markers does Sue have in her school bag?

Find the strategy that is similar to how you solved the problem.

| | |
|--|--|
|  <div style="margin-left: 150px;"> $8 + 9$ $8 + 2 = 10$ $10 + 7 = 17$ </div> |  <div style="margin-left: 150px;"> $8 + 9$ $7 + 1 + 9$ $7 + 10 = 17$ </div> |
| $8 + 9$ $8 + 8 + 1$ $16 + 1 = 17$ | $8 + 9$ $9 + 9 - 1$ $18 - 1 = 17$ |

How is your strategy similar to your partner's?
 How is your strategy different to your partner's?

Grade 1 Fluency Activity - 1(3) (D) The student is expected to apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a ten.



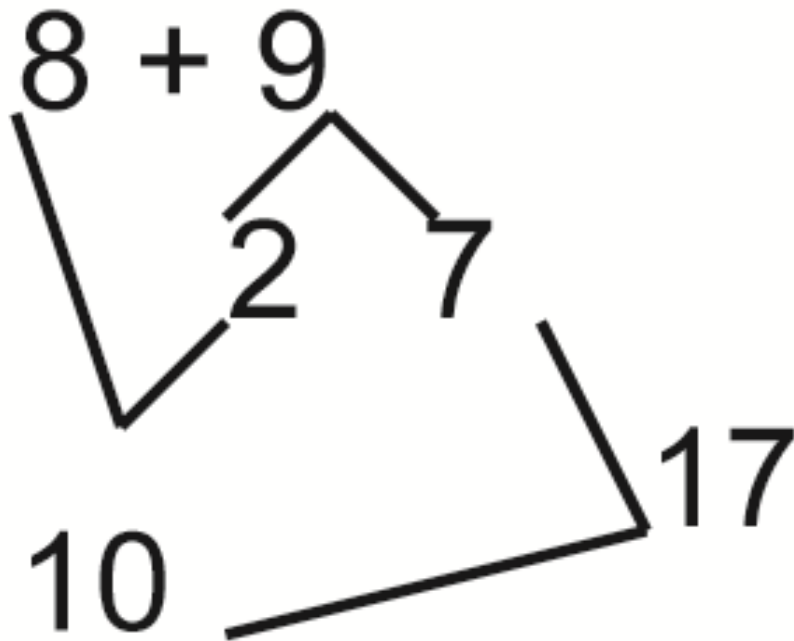
Teacher Directions:

1. Display the problem.

Sue has 8 red markers and 9 blue markers in her school bag. How many markers does Sue have in her school bag?

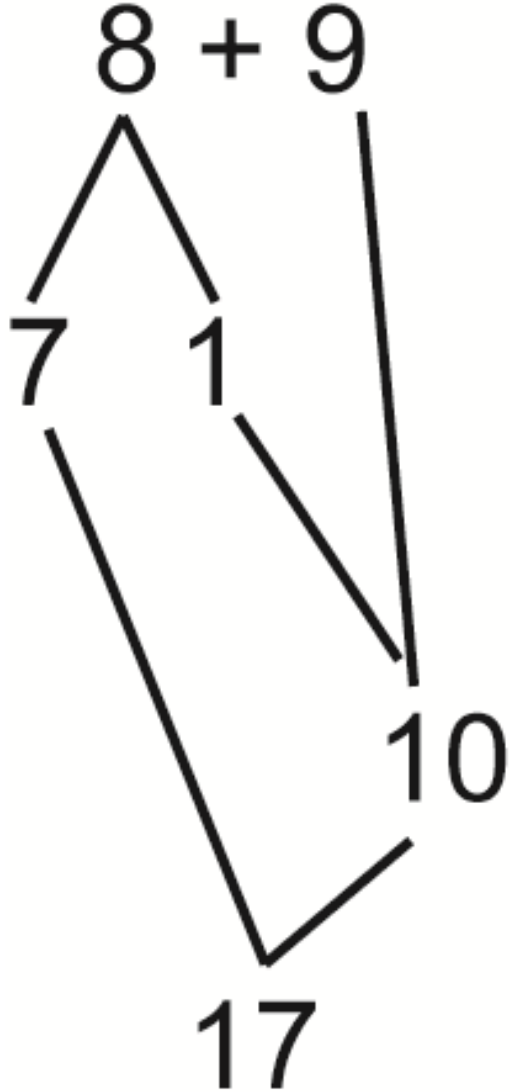
2. Prompt the students to solve this problem.
3. Display the 4 strategy pages in four different corners of the room.
 - Display a blank piece of paper for students to form a group if their strategy did not match any of the four strategies represented.
4. Prompt the students to find the strategy that is similar to the way they solved the problem.
5. Once students have identified their strategy, prompt the students to justify why they belong in that group.
6. After the students have had an opportunity to share, prompt the students to pair up with a student from another group.
7. Prompt the students to discuss how their strategies are similar and how they are different.

Grade 1 Fluency Activity - 1(3) (D) The student is expected to apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a ten.




$$8 + 2 = 10$$
$$10 + 7 = 17$$

Grade 1 Fluency Activity - 1(3) (D) The student is expected to apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a ten.



$$7 + 1 + 9$$
$$7 + 10 = 17$$

Grade 1 Fluency Activity - 1(3) (D) The student is expected to apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a ten.


$$8 + 9$$

$$8 + 8 + 1$$

$$16 + 1 = 17$$

Grade 1 Fluency Activity - 1(3) (D) The student is expected to apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a ten.


$$8 + 9$$

$$9 + 9 - 1$$

$$18 - 1 = 17$$

Grade 1 Fluency Activity - 1(3) (D) The student is expected to apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a ten.

Adding Three Numbers Flexibly

The students in Mrs. Park's class were asked to add 34, 29, and 86.

How would you solve this problem?

Find the strategy that is similar to how you solved the problem.

| | | | | | | | | | |
|--|--|--|------------|--|----------|------------------|--|--|--|
| | <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; padding-right: 20px;"> $\begin{array}{r} 30 \\ 20 \\ +80 \\ \hline 130 \end{array}$ </td> <td style="text-align: center;"> $100 + 30$ </td> <td style="text-align: center; padding-left: 20px;"> $\begin{array}{r} 4 \\ 6 \\ +9 \\ \hline 19 \end{array}$ </td> <td style="text-align: center; padding-left: 20px;"> $10 + 9$ </td> </tr> <tr> <td colspan="4" style="text-align: center; padding-top: 20px;"> $130 + 19 = 149$ </td> </tr> </table> | $\begin{array}{r} 30 \\ 20 \\ +80 \\ \hline 130 \end{array}$ | $100 + 30$ | $\begin{array}{r} 4 \\ 6 \\ +9 \\ \hline 19 \end{array}$ | $10 + 9$ | $130 + 19 = 149$ | | | |
| $\begin{array}{r} 30 \\ 20 \\ +80 \\ \hline 130 \end{array}$ | $100 + 30$ | $\begin{array}{r} 4 \\ 6 \\ +9 \\ \hline 19 \end{array}$ | $10 + 9$ | | | | | | |
| $130 + 19 = 149$ | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Could all of the strategy be used to solve the problem? Why or Why not?

Grade 2 Fluency Activity - 2(4) (B) The student is expected to add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations.



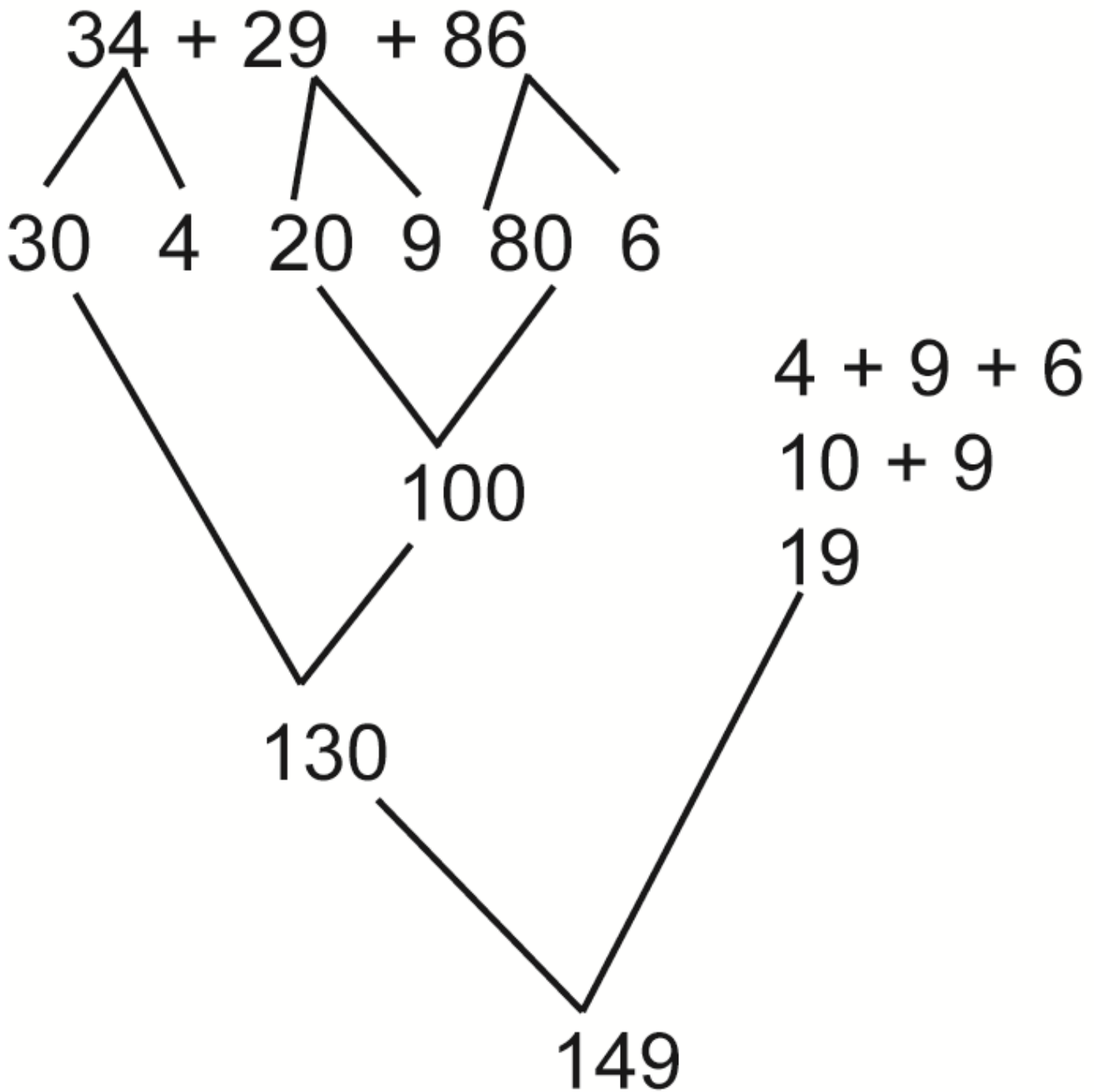
Teacher Directions:

1. Display the problem.

The students in Mrs. Park's class were asked to add 34, 29, and 86.

2. Prompt the students to solve this problem.
3. Display the 4 strategy pages in four different corners of the room.
 - Display a blank piece of paper for students to form a group if their strategy did not match any of the four strategies represented.
4. Prompt the students to find the strategy that is similar to the way they solved the problem.
5. Once students have identified their strategy, prompt the students to justify why they belong in that group.
6. After students have had a chance to share their thinking, rearrange the strategy pages so that they can be seen by all of the students.
7. Prompt the students to respond to the question.

Grade 2 Fluency Activity - 2(4) (B) The student is expected to add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations.



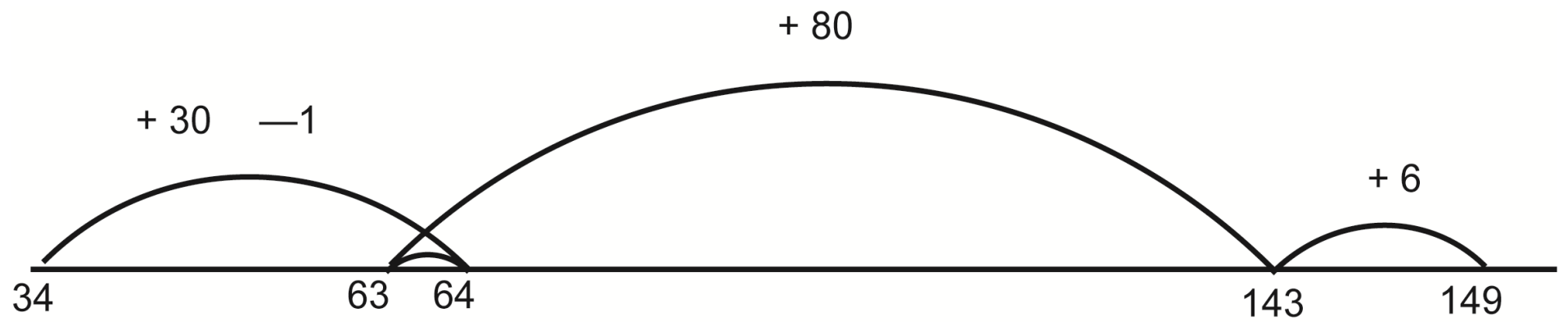
Grade 2 Fluency Activity - 2(4) (B) The student is expected to add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations.

$$\begin{array}{r} 30 \\ 20 \\ +80 \\ \hline 130 \end{array} \quad \begin{array}{l} > \\ > \end{array} \quad 100 + 30$$

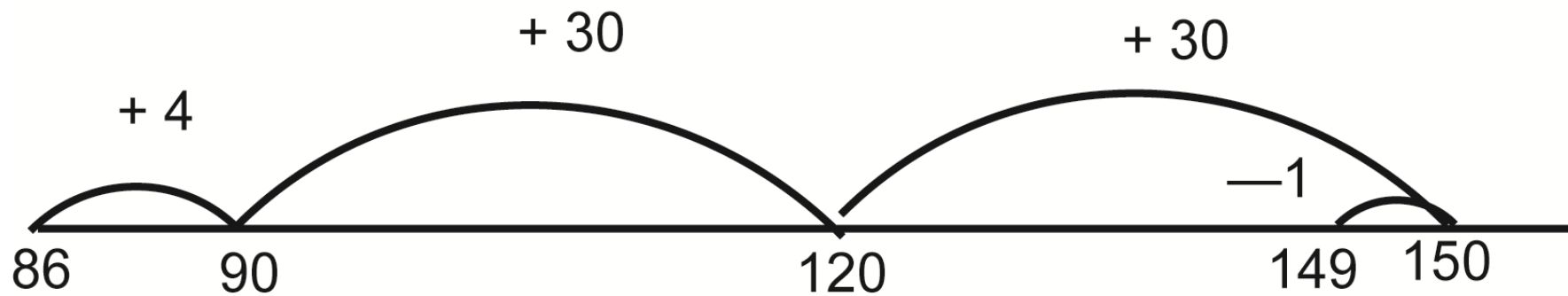
$$\begin{array}{r} 4 \\ 6 \\ +9 \\ \hline 19 \end{array} \quad \begin{array}{l} > \\ > \end{array} \quad 10 + 9$$

$$130 + 19 = 149$$

Grade 2 Fluency Activity - 2(4) (B) The student is expected to add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations.



Grade 2 Fluency Activity - 2(4) (B) The student is expected to add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations.



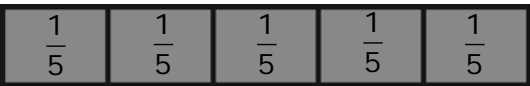



Grade 2 Fluency Activity - 2(4) (B) The student is expected to add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations.

Name: _____ Date: _____

Representing Fractions

Use the example below to complete the remaining items.

| | |
|---|--|
| <p>Example:</p> $\frac{3}{4}$  $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$ | <p>2</p>  $\frac{1}{3} + \frac{1}{3} = \frac{\quad}{\quad}$ |
| <p>1</p>  $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{\quad}{\quad} = 1$ | <p>3</p>  $\frac{\quad}{\quad} + \frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{\quad}$ |

What patterns did you notice?

Grade 03 Fluency Activity

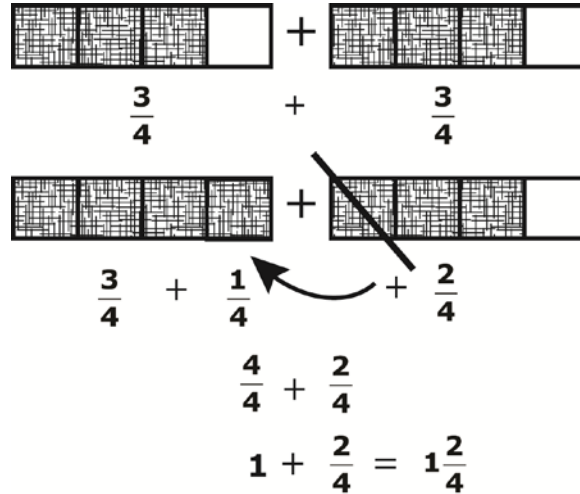
3(3)(D)- The student is expected to compose and decompose a fraction $\frac{a}{b}$ with a numerator greater than zero

and less than or equal to b as a sum of parts $\frac{1}{b}$.

Name: _____ Date: _____

James' Strategy

James used the strategy shown to add $\frac{3}{4} + \frac{3}{4}$.



Complete the problems below using James' strategy.

| | |
|---|---|
| <p>1 $\frac{3}{6} + \frac{4}{6}$</p> | <p>3 $\frac{3}{7} + \frac{4}{7}$</p> |
| <p>2 $\frac{2}{3} + \frac{2}{3}$</p> | <p>4 $\frac{7}{10} + \frac{6}{10}$</p> |

What patterns did you notice?

Grade 4 Fluency Activity- 4(3)(B) The student is expected to decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations.

Name: _____ Date: _____

Franchesca's Fractions

Below is Franchesca's work from her class today.

$$\begin{aligned} & \frac{2}{3} + \frac{3}{4} \\ & \frac{8}{12} + \frac{9}{12} \\ & \left(\frac{8}{12} + \frac{4}{12} \right) + \frac{5}{12} \\ & \frac{12}{12} + \frac{5}{12} \\ & 1 \frac{5}{12} \end{aligned}$$

What was her strategy? Complete the four problems below using her strategy.

| | |
|-------------------------------|--------------------------------|
| 1 $\frac{2}{3} + \frac{5}{9}$ | 3 $\frac{5}{8} + \frac{2}{3}$ |
| 2 $\frac{1}{2} + \frac{4}{5}$ | 4 $\frac{7}{10} + \frac{3}{4}$ |

What patterns did you notice?

Grade 5 Fluency Activity – 5(3)(K) The student is expected to add and subtract positive rational numbers fluently.

Name: _____ Date: _____

Inigo's Integers

Below is Inigo's work from his class today.

$$\begin{array}{r} -5 + 8 \\ (-5 + 5) + 3 \\ 0 + 3 \\ 3 \end{array}$$

What was his strategy? Complete the four problems below using his strategy.

| | | | |
|---|-------------|---|------------|
| 1 | $-6 + 2$ | 3 | $-3 + 15$ |
| 2 | $7 + (-12)$ | 4 | $8 + (-5)$ |

What patterns did you notice?

Grade 6 Fluency Activity – 6(3)(D) The student is expected to add, subtract, multiply, and divide integers fluently.

Name: _____ Date: _____

Ra'Neisha's Rationals

Below is Ra'Neisha's work from her class today.

$$\begin{aligned} & -1.2 + 3.4 \\ & (-1.2 + 1.2) + 2.2 \\ & 0 + 2.2 \\ & 2.2 \end{aligned}$$

What was her strategy? Complete the four problems below using her strategy.

| | |
|-------------------|------------------|
| 1 $-6.4 + 2.3$ | 3 $-3.7 + 15.4$ |
| 2 $7.9 + (-12.4)$ | 4 $3.4 + (-1.2)$ |

What patterns did you notice?

Grade 7 Fluency Activity – 7(3)(A) The student is expected to add, subtract, multiply, and divide rational numbers fluently.