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# Effective Uses for Ten Frames

## Presenter:

## Melissa Conklin

# What's Being Said…

"It's critical for students to have mathematical experiences that focus on landmark numbers and relationships between numbers. Ten-Frames organize quantities around an important benchmark in our number system."

--Susan Scharton

UC San Diego

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# Using Ten Frames to Build Number Sense

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# Games

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# More or Less

1

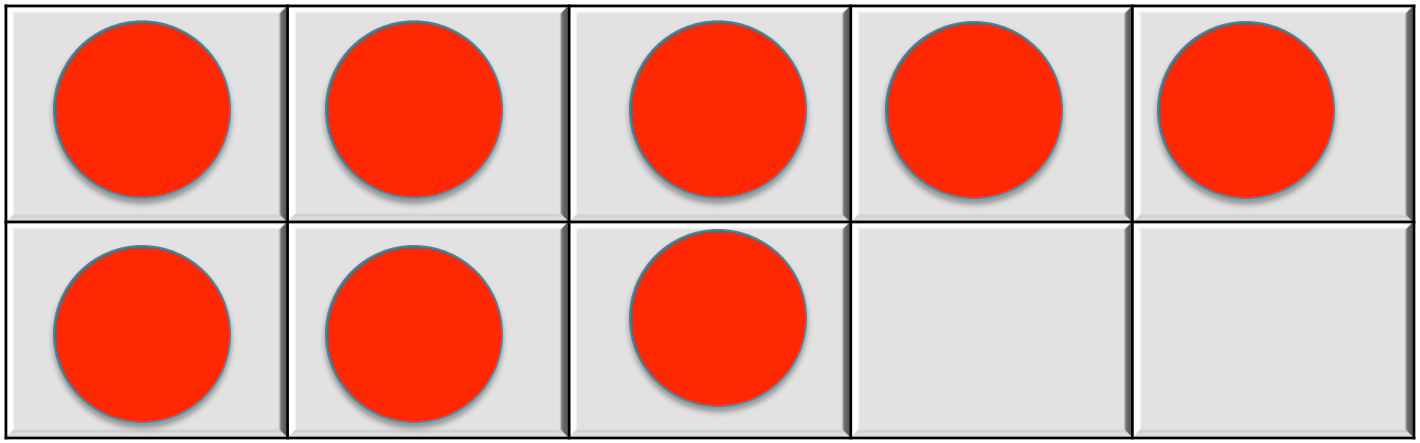
3

5

3

4

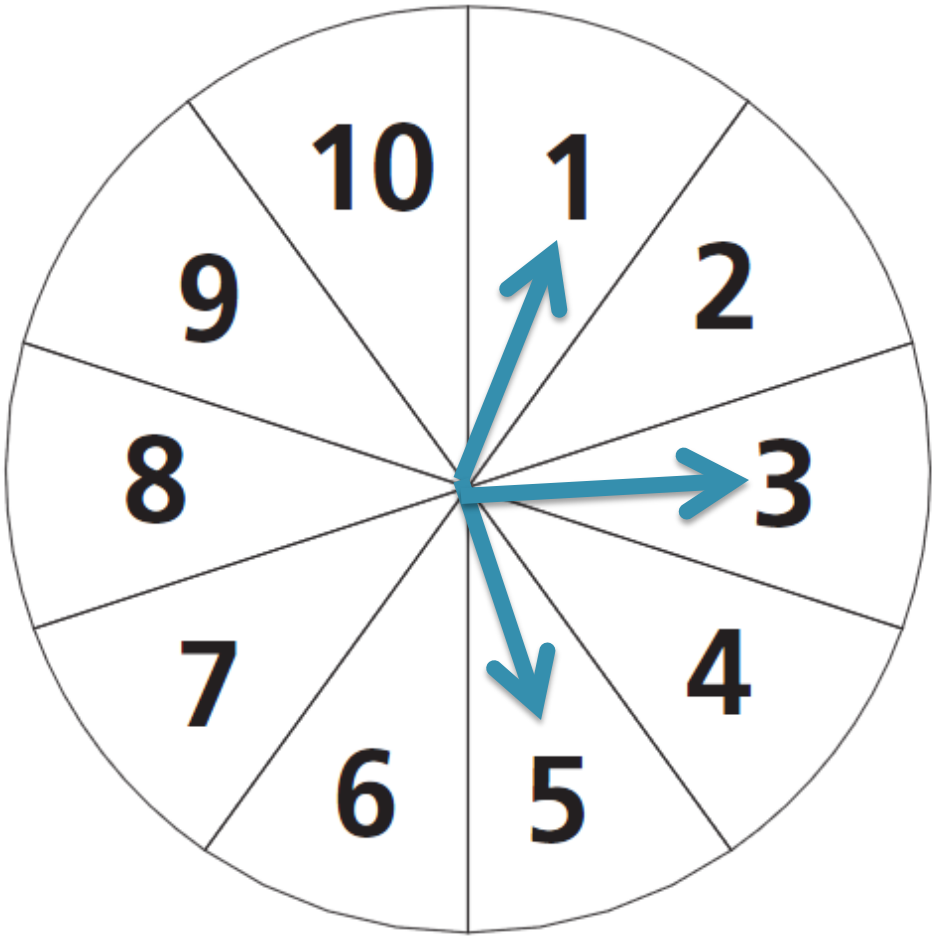
1



# More or Less

- What's the math kids experience while playing?
- What questions could you ask students while they play this game?

# More or Less Part 2




How many squares on the ten frame are filled?

How many squares on the ten frame are empty?

1 + 9 = 10

5 + 5 = 10

3 + 7 = 10

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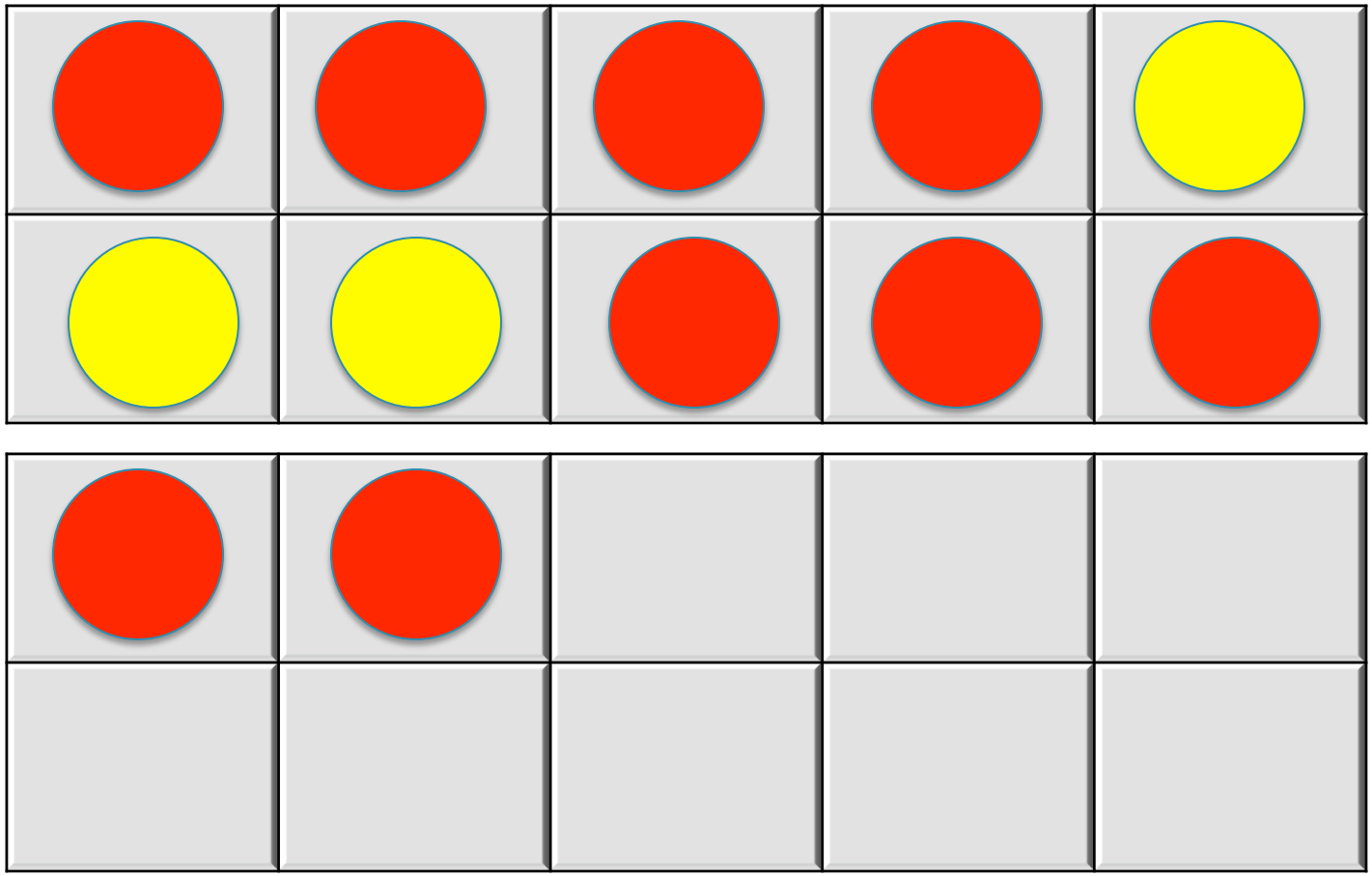
# Race to 20

4

3

5



**4 + 3 + 5 = 12**

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- Cover the 6 with a small sticker. Have students answer a key question when they roll the side with the sticker.

- How many more counters do you need to have ten? ...to have twenty?
- How many more (fewer) counters do you have compared with your partner?
- How many counters are on your ten—frame?

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# Assessing

Use previously played games to connect pictures to number sentences.

Race to 20 Assessment

Name: _____

1.

What number sentences match the game board?

How would you add these numbers together?

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# Class Discussions

Use previously played games to facilitate number talks.

- 4 + 3 + 5 + 4 + 2 =

  3 + 5 = 8

  8 + 2 = 10

  4 + 4 = 8

  10 + 8 = 18

- 6 + 5 + 4 + 2 + 1 + 1 =

  How would you find the sum of this number string?

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# Make Five!

- Shuffle the cards and turn over the first **five** from the deck.
- Player A looks for two cards with a sum of 5.
- Player B looks for two cards with a sum of 5.
- Players record the combinations.

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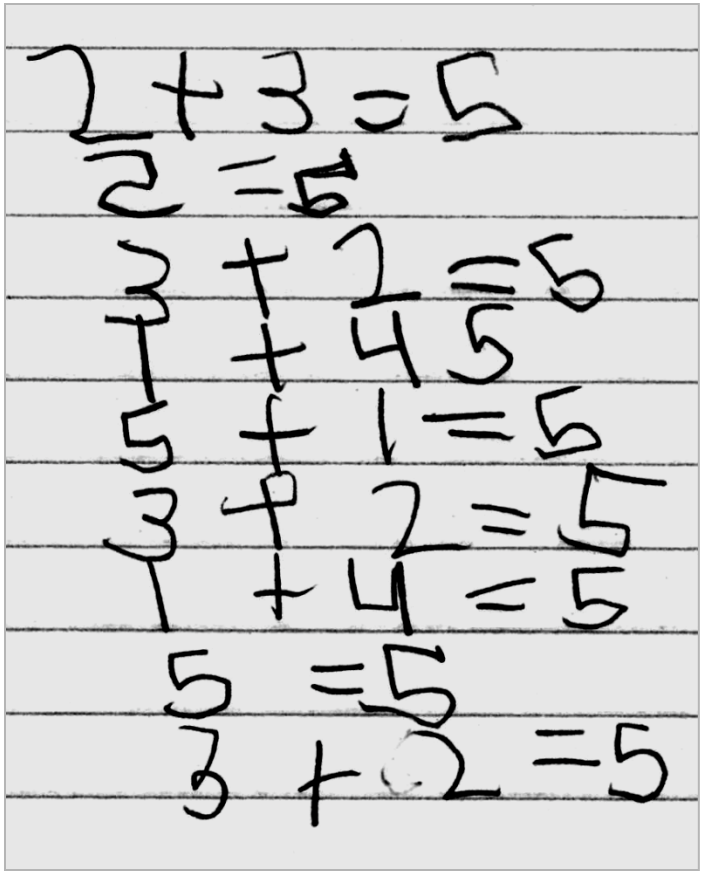


# Make Five!
# Student Work

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# Double Bank It!

- Shuffle cards and deal into two decks—one for each player.
- Each player should turn over two of the top cards from their deck.
- Find the sum and compare.
- The greater sum wins all four cards.

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# Sentence Frames

| | |
|---|---|
| **# is less than #.** | *Smaller, fewer, not as much* |
| **# is greater than #.** | *More, bigger, larger* |
| **# is equal to #.** | *Same as* |

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# Whole Class Discussion

- 8 + ___ > 4 + 6

  8 + **10** > 4 + 6

  8 + **4** > 4 + 6

- 8 + **2** = 4 + 6

- ___ + ___ = 4 + 6

  **5** + **5** = 4 + 6

  **9** + **1** = 4 + 6

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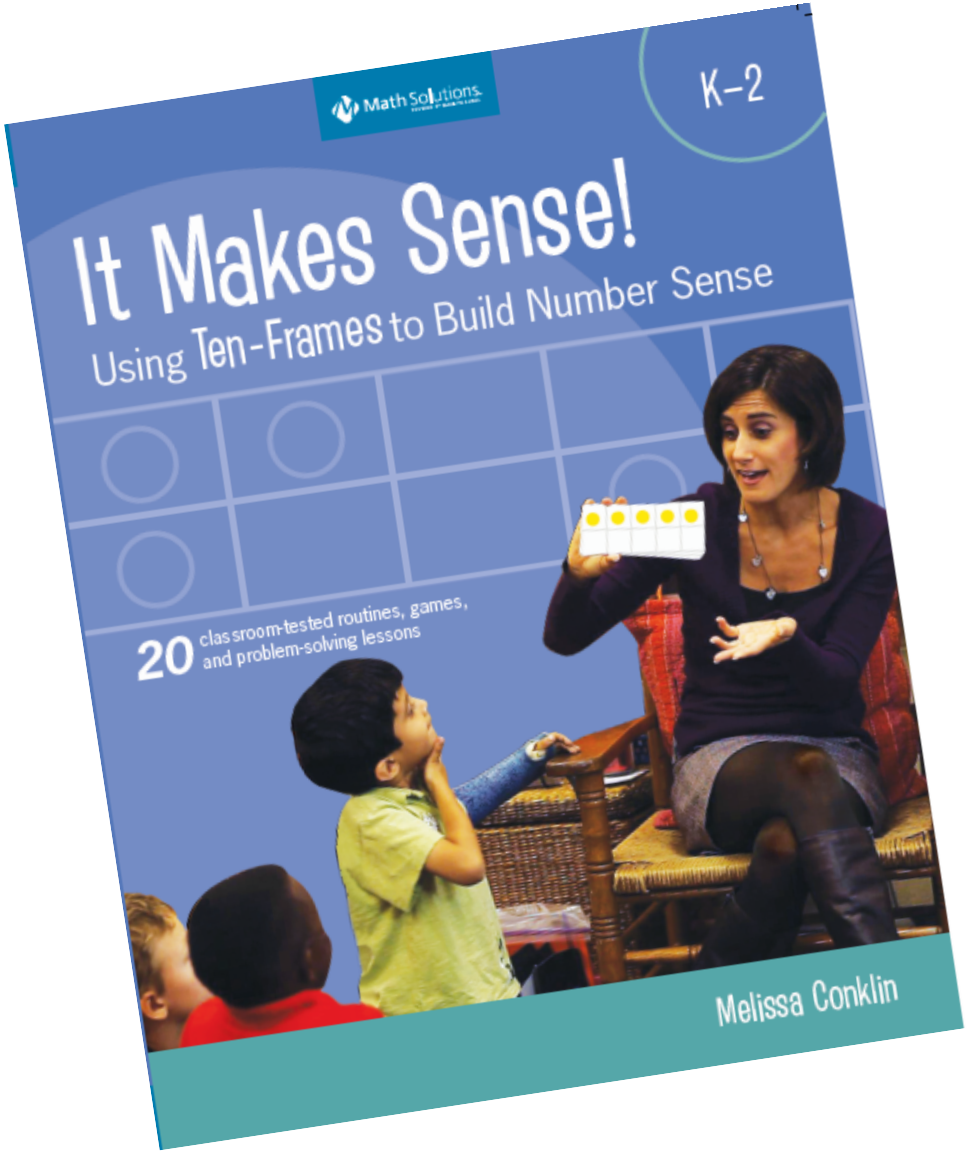


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# Problem Solving Lessons

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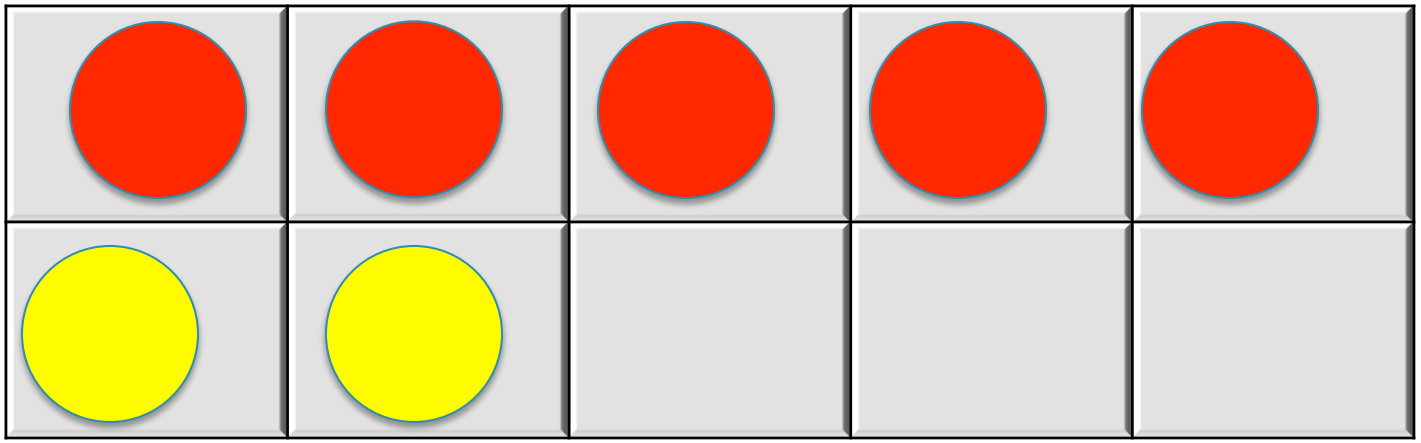
# Two—Color Counters



$$7 = 5 + 2$$

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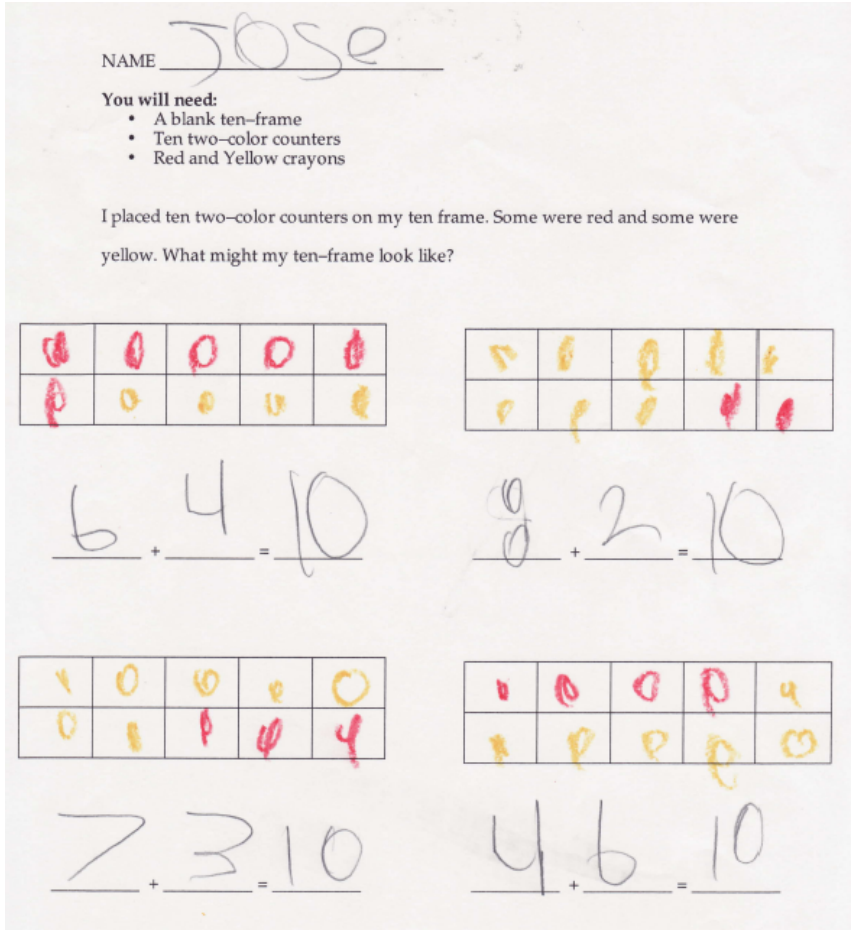
# Student Work



NAME Jose

**You will need:**

- A blank ten–frame
- Ten two–color counters
- Red and Yellow crayons

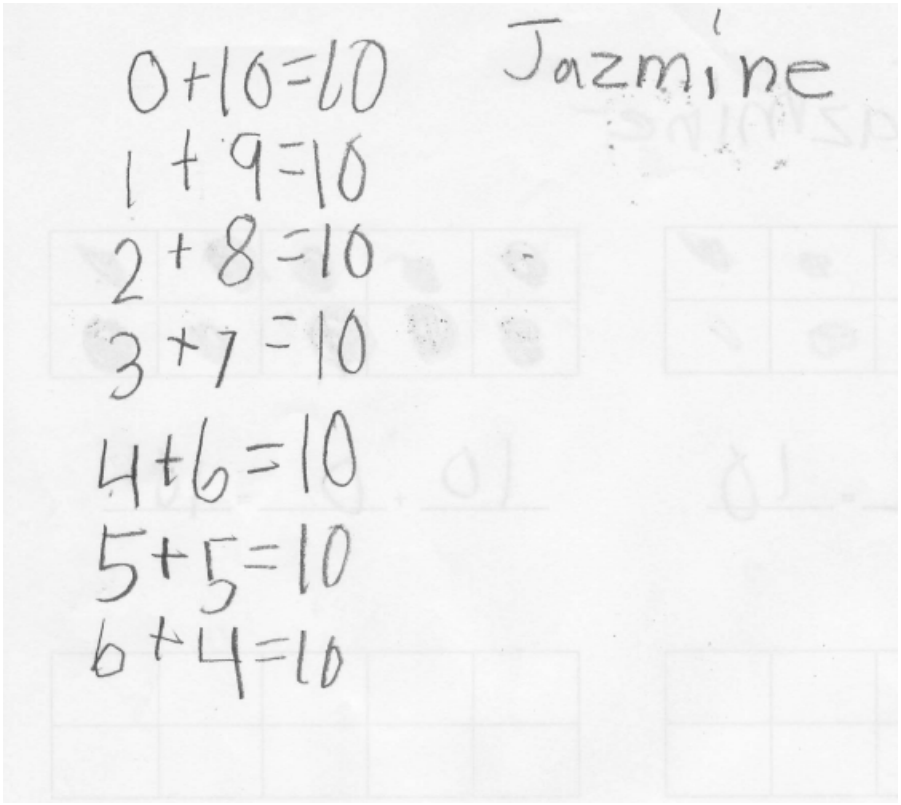
I placed ten two–color counters on my ten frame. Some were red and some were yellow. What might my ten–frame look like?

6 + 4 = 10

9 + 2 = 10

7 + 3 = 10

4 + 6 = 10



Jazmine

0+10=10
1+9=10
2+8=10
3+7=10
4+6=10
5+5=10
6+4=10

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# Summarizing the lesson with a class discussion

| Red | Yellow |
| --- | --- |
| 1 | 9 |
| 9 | 1 |

# Final T—Chart

| Red | Yellow |
|---|---|
| 1 | 9 |
| 2 | 8 |
| 3 | 7 |
| 4 | 6 |
| 5 | 5 |
| 6 | 4 |
| 7 | 3 |
| 8 | 2 |
| 9 | 1 |

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# Riddles

- My ten—frame has fewer than 9 counters.
- My ten—frame has more that 4 counters.
- My ten—frame has an odd number of counters.
- My ten—frame has one more than 6 counters.

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# Riddles Using a Double Ten—Frame

- My double ten—frame has more than 8 counters.
- My double ten—frame has fewer than 17 counters.
- My double ten—frame has a number of counters you say when you skip count by threes.
- My double ten—frame has 3 rows of five counters.

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# Kindergarten Riddles

- My ten—frame has more than 4 counters.
- My ten—frame has less than 9 counters.
- My ten frame is 1 more than 5.

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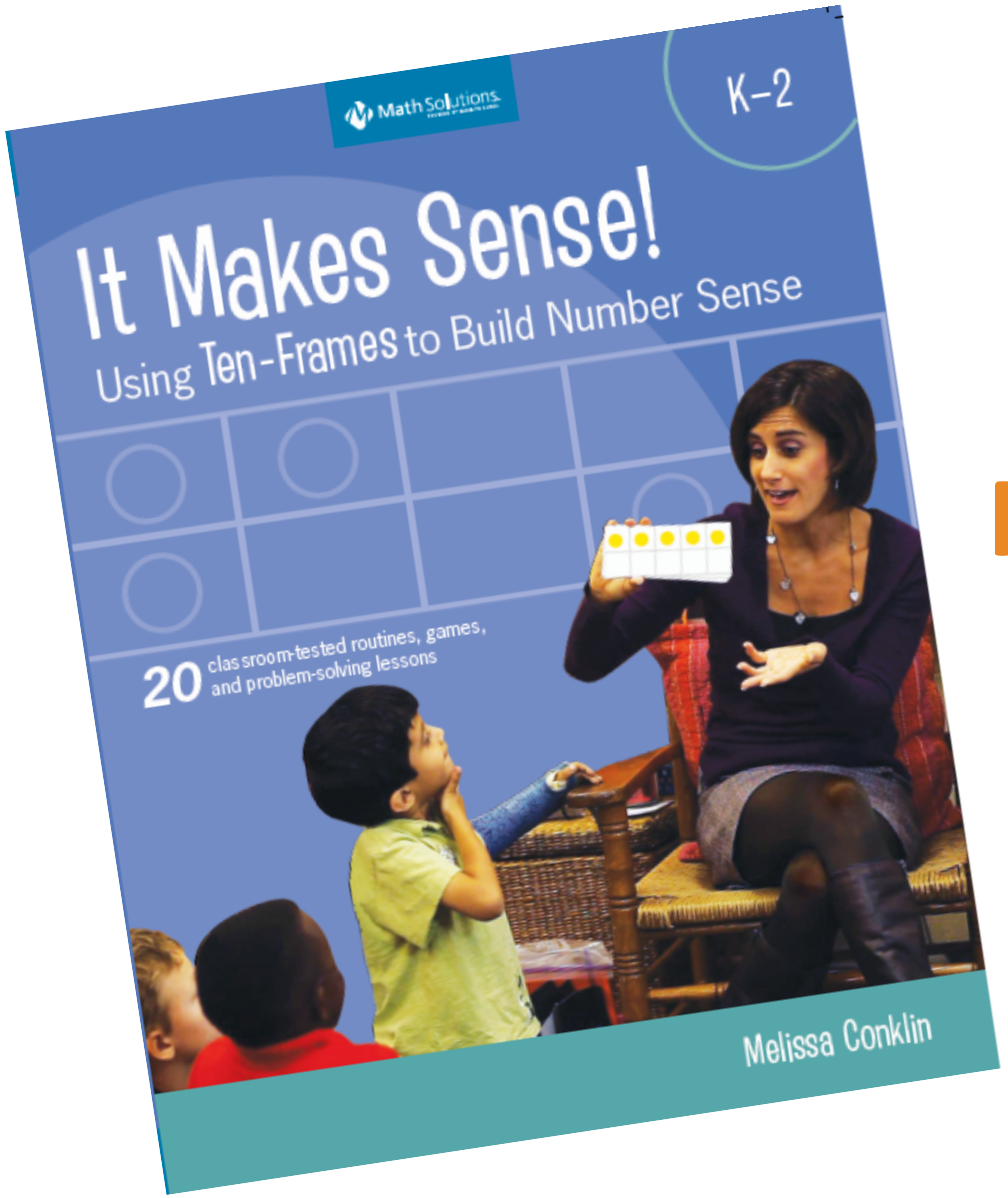


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# Routines

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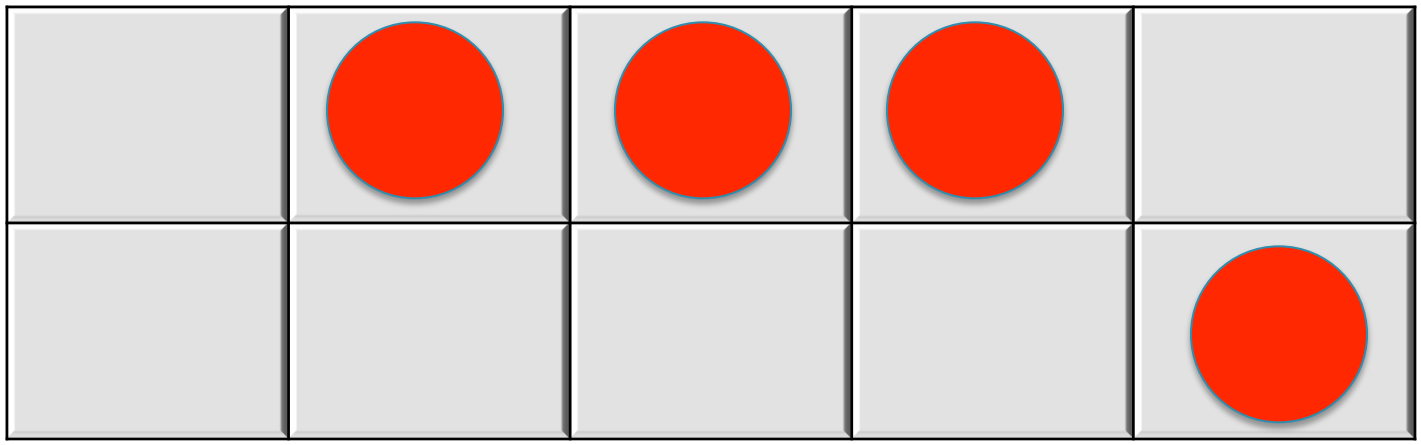
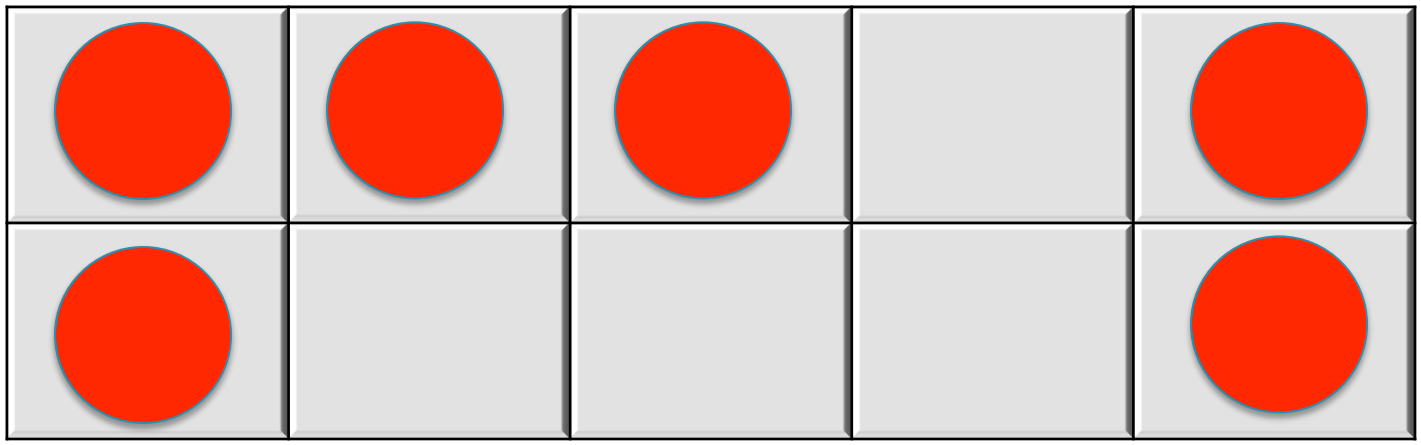
# Look Quick!



# Look Quick!



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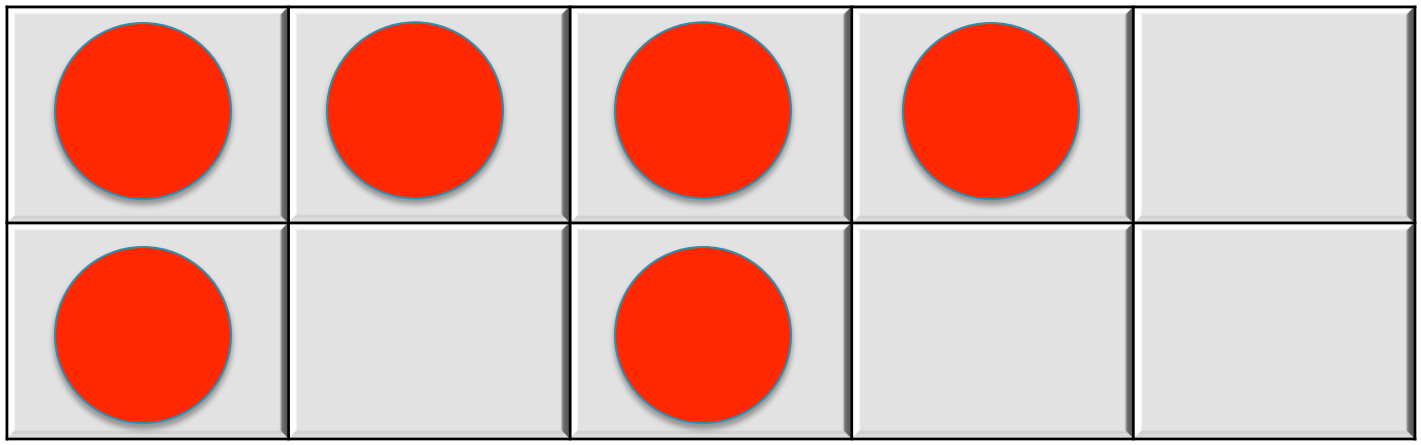
# Look Quick!



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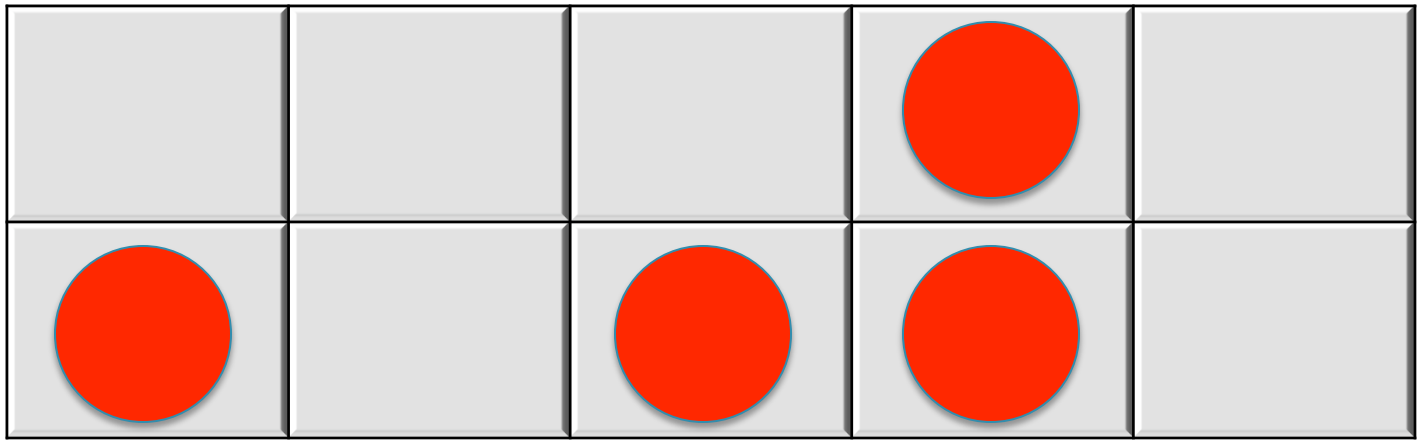
# Make the Number



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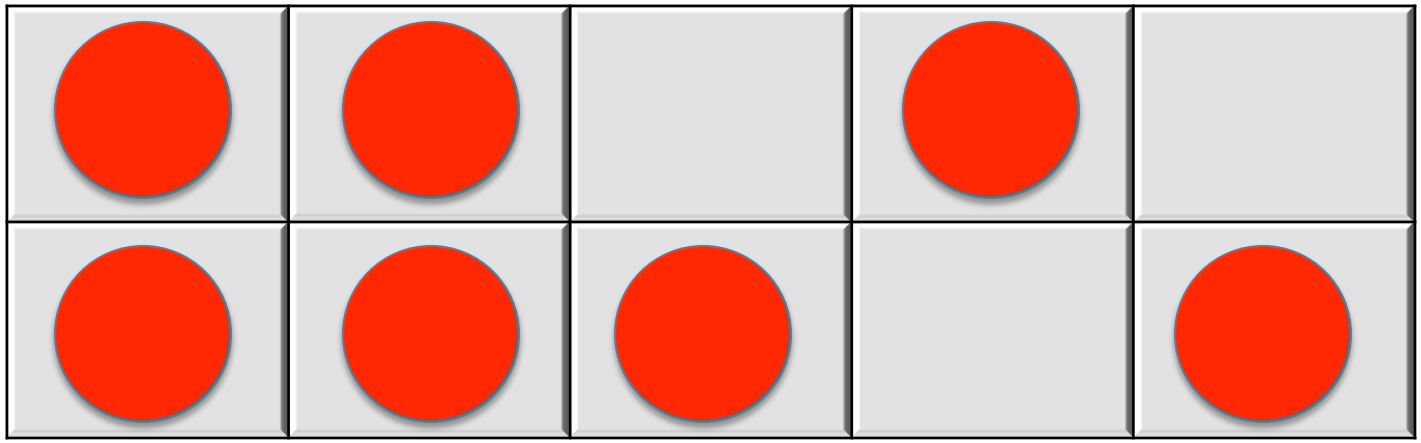
# Make the Number



# Adding Nine

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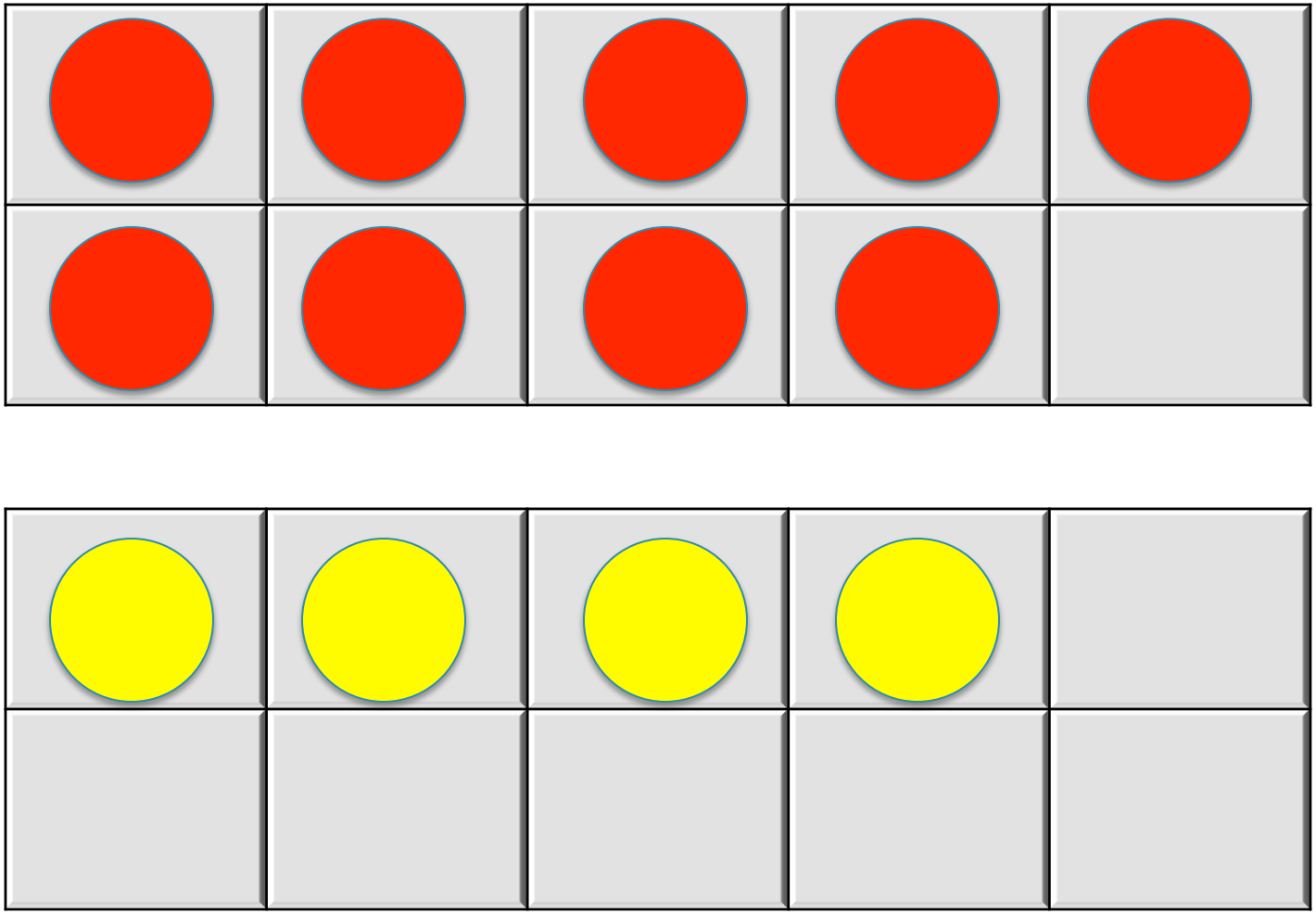
# 9 + 4 =



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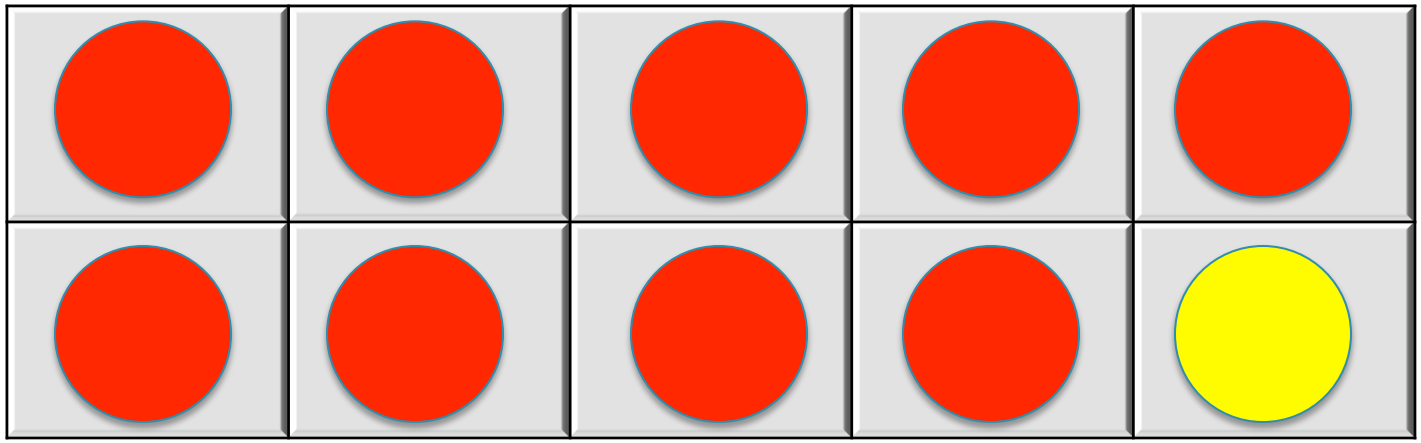
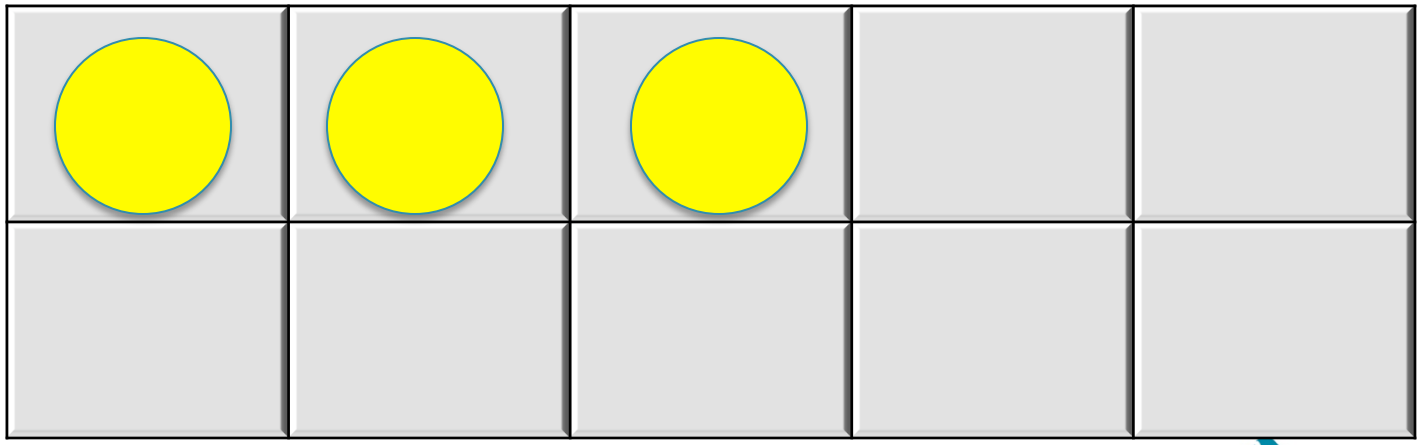
$$9 + 4 = 10 + 3$$

$$13 = 13$$





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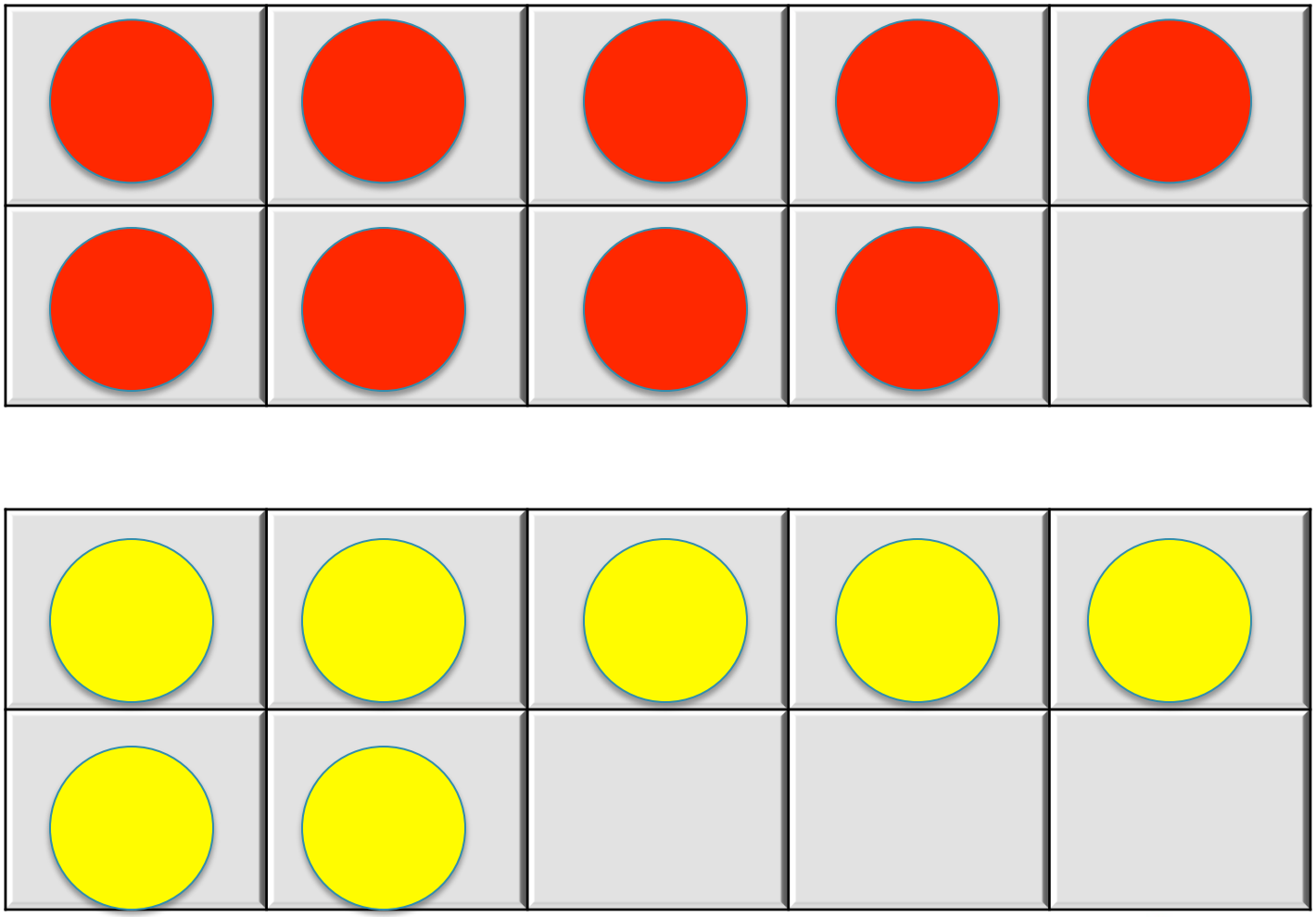
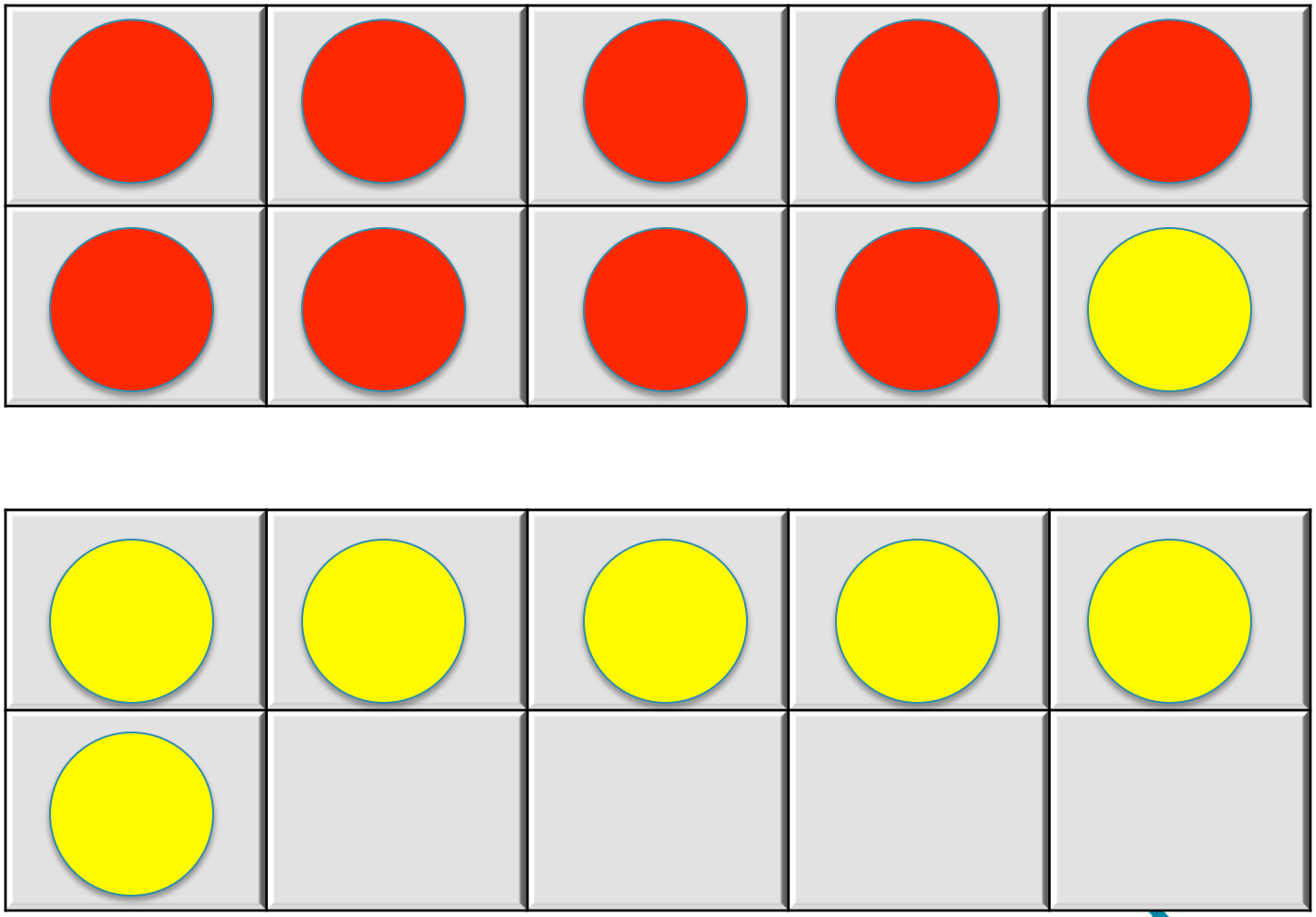
# 9 + 7 =



$$9 + 7 = 10 + 6$$

$$16 = 16$$



# Adding Nine

Name: _____

**Directions**

1. Look at the problem. Use counters to build the first number sentence on your double ten-frame.
2. Make a ten on your double ten-frame by rearranging the counters you've placed, and complete the second number sentence.
3. Figure out the sum. Record the sum for both sentences.

1. $9 + 7 = 10 + \_\_\_\_$
   $\_\_\_\_ = \_\_\_\_$

2. $9 + 2 = 10 + \_\_\_\_$
   $\_\_\_\_ = \_\_\_\_$

5. $9 + 6 = \_\_\_\_ + \_\_\_\_$
   $\_\_\_\_ = \_\_\_\_$

6. $9 + 5 = \_\_\_\_ + \_\_\_\_$
   $\_\_\_\_ = \_\_\_\_$

# Adding Nine Work Sheet

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