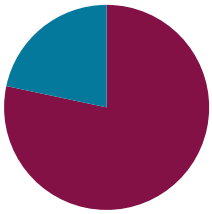
Lesson 1

Objective: Practice making ten and adding to ten.

Suggested Lesson Structure

Fluency Practice	(47 minutes)
Student Debrief	(13 minutes)
Total Time	**(60 minutes)**



NOTES ON TOPIC A'S LESSON STRUCTURE:

Grade 2 students spend much of the year adding and subtracting. Topic A's lessons are a review of many of the fluency activities and experiences students know well from Grade 1. The purpose of the two days is to joyfully quicken the pace of Grade 1 work, establish new class routines, and remember foundational skills necessary for success with fluency with sums and differences within 100, a Grade 2 fluency goal. The Concept Development lessons begin in Topic B.

Fluency Practice (47minutes)

- Ten-Frame Flash **2.OA.2** (5 minutes)
- Happy Counting the Say Ten Way **2.OA.2** (6 minutes)
- Sprint: Add a Ten and Some Ones **2.OA.2** (18 minutes)
- Target Practice: Within 10 **2.OA.2** (10 minutes)
- Pairs to Ten with Number Bonds **2.OA.2** (8 minutes)

Ten-Frame Flash (5 minutes)

Materials: (T) Ten-frame cards (Fluency Template 1), 5-group column cards (Fluency Template 2)

Note: By alternating between ten-frame and 5-groups column cards, students develop flexible perception of numbers 6–10 in two parts, with one part as 5. This activity practices the core fluency objective from Grade 1, adding and subtracting within 10.

The teacher flashes a ten-frame card for 2–3 seconds and guides students to respond on a signal. Students then generate a number sentence to get to 10.

MP.8

T: (Flash the 9 ten-frame card. Give the signal.)
S: 9.
T: How much does 9 need to make 10?
S: 1.
T: Say the addition number sentence to make 10, starting with 9.
S: 9 + 1 = 10.
T: (Continue to show the 9 card.) Tell me a related subtraction sentence starting with 10.
S: 10 – 1 = 9. 10 – 9= 1.

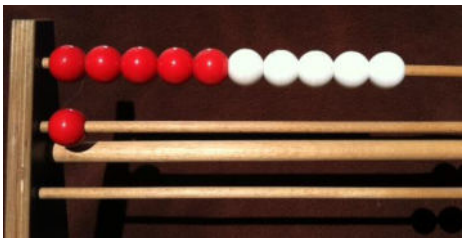
Continue the process, using both ten-frame cards and 5-group column cards in the following suggested sequence: 8, 2, 5, 7, 3, 6, 4, 10, and 0.

Happy Counting the Say Ten Way (6 minutes)

Materials: (T) 100-bead Rekenrek (or Slavonic Abacus)

Note: East Asian or Say Ten counting (e.g., 13 is said *ten 3*) matches the base ten structure of numbers. In contrast, the English language says the ten *after* the ones (e.g., *four-teen*). This makes *fourteen* easily confused with *forty*. Since Kindergarten, in *A Story of Units,* students have been counting the Say Ten way, a practice substantiated by research[1].

Part 1: Happy Counting on the Rekenrek

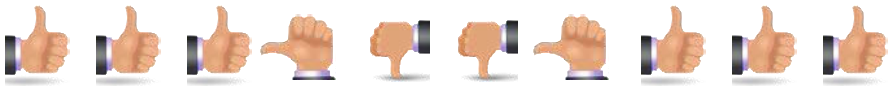


Ten 1

T: Let's count the Say Ten way.
T: (Show 10 beads. Move one at a time as students count.)
T: Ten 1. Say it with me. (See image to the right.)
S: Ten 1.
T: (Move the beads and have students count ten 2, ten 3, ten 4, ten 5, ten 6, ten 7, ten 8, ten 9, 2 tens.)
T: (Take one bead away.) Tell me the number the Say Ten way.
S: Ten 9.

Continue to count up and down within 20 as students call out the number the Say Ten way. As students demonstrate proficiency, consider alternating between the Say Ten way and the regular way (e.g., eleven, twelve, thirteen, fourteen, fifteen, sixteen, change to Say Ten counting and go down, ten 5, ten 4).

Part 2: Happy Counting

T: 

Ten 3 ten 4 ten 5 ten 6 pause ten 5 ten 4 pause ten 5 ten 6 ten 7 etc.

When Happy Counting, make the motions emphatic so counting is sharp and crisp. As students improve, up the challenge by increasing the speed and the number of direction changes or by using higher numbers. Be careful not to mouth the numbers!

T: Now, let's do some Happy Counting without the beads. Watch my thumb to know whether to count up or down. A thumb in the middle means pause. (Show signals as you explain.)
T: Let's count by ones starting at ten 3. Ready? (Rhythmically point up or down depending on if you want students to count up or count down.)
S: Ten 3, ten 4, ten 5, ten 6, (pause) ten 5, ten 4, (pause) ten 5, ten 6, ten 7, ten 8, (pause) ten 7, (pause) ten 8, ten 9, 2 tens.

[1]Progressions for the Common Core State Standards: "K-5, Numbers and Operations in Base Ten" (pp. 5)

page one homework guide .p

Part 3: Say Ten as Ten Plus Facts

To segue to the upcoming Sprint, students say addition sentences for teen numbers when one addend is 10. Alternate between the regular way and the Say Ten way.

T: If I say ten 2, you say 10 + 2 = 12.
T: What do you say if I say thirteen?
S: 10 + 3 = 13.
T: Yes! You guessed the pattern. Here's another. Ten 5.
S: 10 + 5 = 15.
T: Fourteen.
S: 10 + 4 = 14.

Use the following suggested sequence: ten 6, seventeen, eighteen, ten 5, eleven, ten 8, ten 1, etc.

Sprint: Add a Ten and Some Ones (18 minutes)

Materials: (S) Add Ten and Some Ones Sprint

Note: See the *Suggested Methods of Instructional Delivery* in the Module Overview for clear instructions on administering Sprints. This Sprint brings automaticity back with the *ten plus* sums, which are foundational for the make a ten strategy and expanded form.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

For Sprints, a fast pace is essential to build energy and excitement. To support students who do not excel under pressure, give them the chance to practice the Sprint at home the night before it is administered.

To maintain a high level of energy and enthusiasm, always do a stretch or movement game in between Sprint A and Sprint B. For example, do jumping jacks while skip-counting by fives.

Target Practice: Within 10 (10 minutes)

Materials: (S) Per set of partners: personal white board, target practice (Fluency Template 3), 1 numeral die

Note: Decomposition of single-digit numbers and 10 is a foundational skill for fluency with sums and differences to 20.

Assign Partner A and Partner B. Students write the target number, 10, in the circle at the top right of the target practice template.

Directions:

- Partner A rolls the die.
- Partner A writes the number rolled in one part of the first number bond.
- Partner B makes a bull's eye by writing the missing part that is needed to make ten.

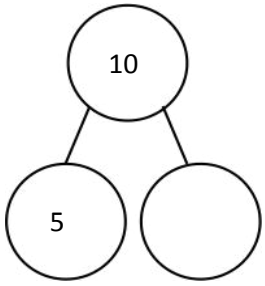
Adjust the target number as appropriate for each pair of students, focusing on totals of 6, 7, 8, 9, and 10.

NOTES ON MULTIPLE MEANS OF ACTION AND REPRESENTATION:

For students who have not yet mastered their pairs to ten, use fingers as models. Have students show the larger addend on their fingers and encourage them to look at their tucked fingers to determine the partner to make ten.

Pairs to Ten with Number Bonds (8 minutes)

Materials: (S) Personal white board



Note: This is a foundational skill for mastery of sums and differences to 20.

T: I'll show a number bond, and you tell me the missing part to make 10.
T: (Draw the bond shown to the right.)
S: 5.
T: (Erase the 5 and write 8.)
S: 2.

Continue with the following suggested sequence: 9, 7, 3, 6, 4, 1, 10, and 0.

T: With your partner, take turns saying pairs to make 10. Partner A, you will go first for now.

After about 30 seconds, have partners switch roles.

Student Debrief (13 minutes)

Lesson Objective: Practice making ten and adding to ten.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Guide students in a conversation to debrief today's lesson.

Any combination of the questions below may be used to lead the discussion.

- What math work did we do today that you remember from last year?
- What do you hope to get better at in math this year?
- Do you have a favorite math fact and why?
- Can you figure out the math goal of today's lesson? What name would you give this lesson?

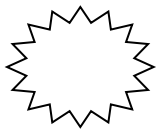
NOTES ON STUDENT DEBRIEF:

To close the majority of lessons, invite students to figure out the math goal. As the year progresses, they will come to anticipate this question, and responses will get increasingly mathematical, precise, and insightful. By engaging in the metacognitive exercise of articulating the goal, students take another step toward owning their learning. When possible, also ask students, "How would you teach this? Who would you teach it to?"

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

A

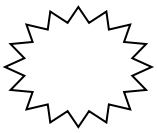
Number Correct: 

Name _____ Date _____

Add a Ten and Some Ones

1.	10 + 1 = _____	16.	3 + 10 = _____
2.	10 + 2 = _____	17.	4 + 10 = _____
3.	10 + 4 = _____	18.	1 + 10 = _____
4.	10 + 3 = _____	19.	2 + 10 = _____
5.	10 + 5 = _____	20.	5 + 10 = _____
6.	10 + 6 = _____	21.	_____ = 10 + 5
7.	_____ = 10 + 1	22.	_____ = 10 + 8
8.	_____ = 10 + 4	23.	_____ = 10 + 9
9.	_____ = 10 + 3	24.	_____ = 10 + 6
10.	_____ = 10 + 5	25.	_____ = 10 + 7
11.	_____ = 10 + 2	26.	16 = _____ + 6
12.	10 + 6 = _____	27.	8 + _____ = 18
13.	10 + 9 = _____	28.	_____ + 10 = 17
14.	10 + 7 = _____	29.	19 = _____ + 10
15.	10 + 8 = _____	30.	18 = 8 + _____

B

Improvement: _____ Number Correct: 

Name _____ Date _____

Add a Ten and Some Ones

1.	10 + 5 = _____	16.	4 + 10 = _____
2.	10 + 4 = _____	17.	3 + 10 = _____
3.	10 + 3 = _____	18.	2 + 10 = _____
4.	10 + 2 = _____	19.	1 + 10 = _____
5.	10 + 1 = _____	20.	3 + 10 = _____
6.	10 + 5 = _____	21.	_____ = 10 + 6
7.	_____ = 10 + 4	22.	_____ = 10 + 9
8.	_____ = 10 + 2	23.	_____ = 10 + 5
9.	_____ = 10 + 1	24.	_____ = 10 + 7
10.	_____ = 10 + 3	25.	_____ = 10 + 8
11.	_____ = 10 + 4	26.	17 = _____ + 7
12.	10 + 6 = _____	27.	3 + _____ = 13
13.	10 + 7 = _____	28.	_____ + 10 = 16
14.	10 + 9 = _____	29.	18 = _____ + 10
15.	10 + 8 = _____	30.	17 = 7 + _____

Name _____ Date _____

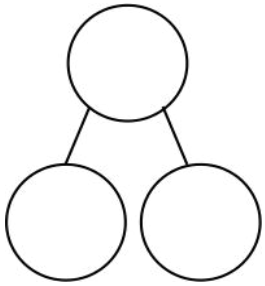
1. Add or subtract. Complete the number bond to match.

a. 9 + 1 = _____

1 + 9 = _____

10 – 1 = _____

10 – 9 = _____

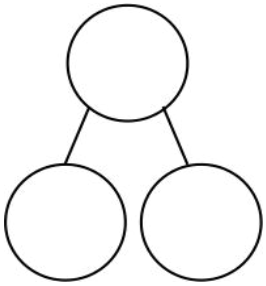


b. 4 + 6 = _____

6 + 4 = _____

10 – 6 = _____

10 – 4 = _____



2. Solve.

a. 10 + 5 = _____

b. 13 = 10 + _____

c. 10 + 8 = _____

Name _____ Date _____

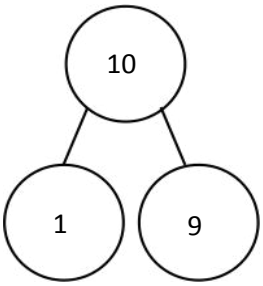
1. Add or subtract. Complete the number bond for each set.

9 + 1 = _____

1 + 9 = _____

10 – 1 = _____

10 – 9 = _____

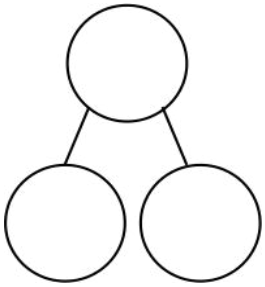


8 + 2 = _____

2 + 8 = _____

10 – 2 = _____

10 – 8 = _____



2. Solve. Draw a number bond for each set.

6 + 4 = _____

4 + 6 = _____

10 – 4 = _____

10 – 6 = _____

3 + 7 = _____

7 + 3 = _____

10 – 7 = _____

10 – 3 = _____

3. Solve.

10 = 7 + _____

10 = 3 + _____

10 = 5 + _____

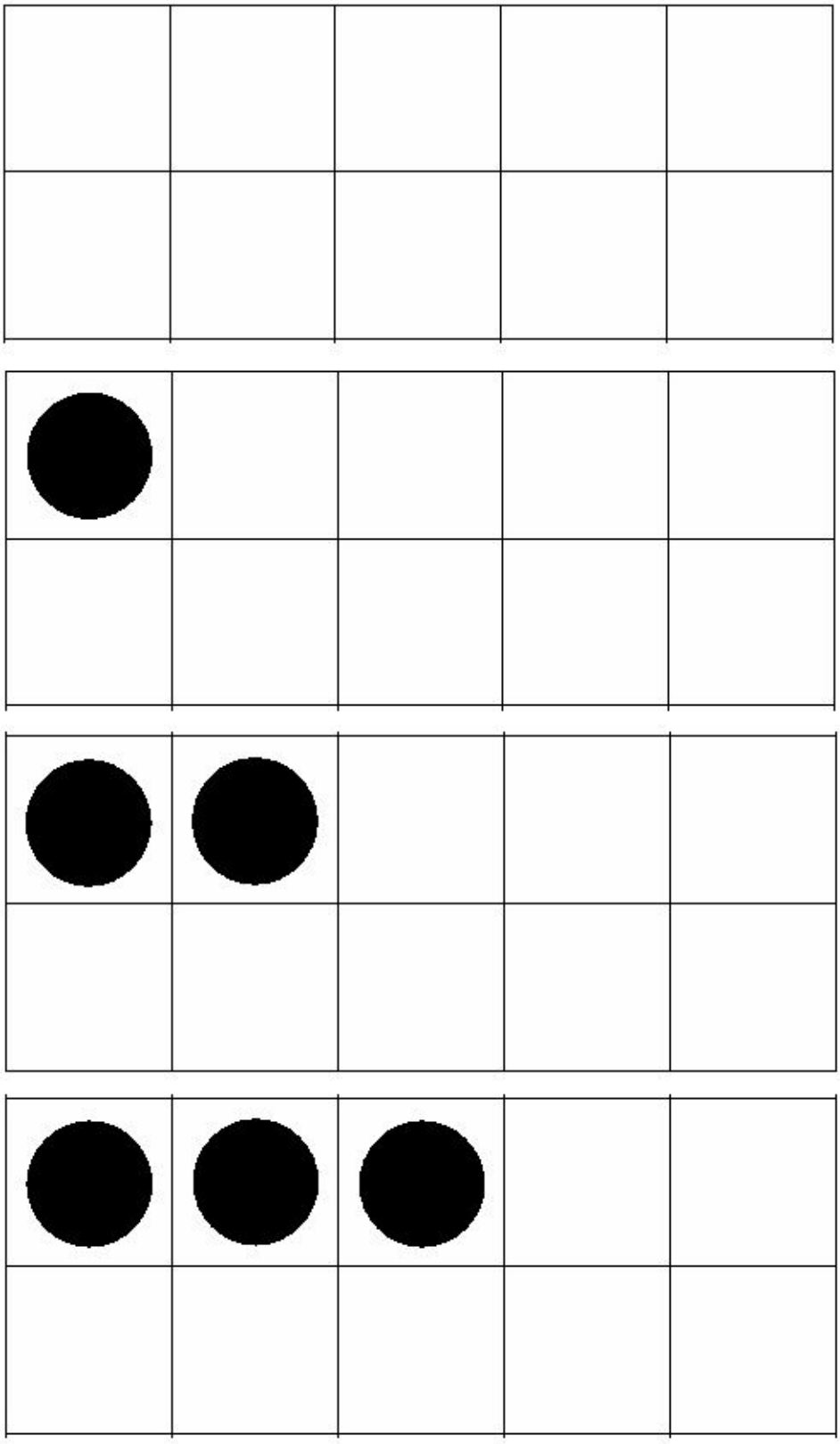
10 = 2 + _____

10 = _____ + 8

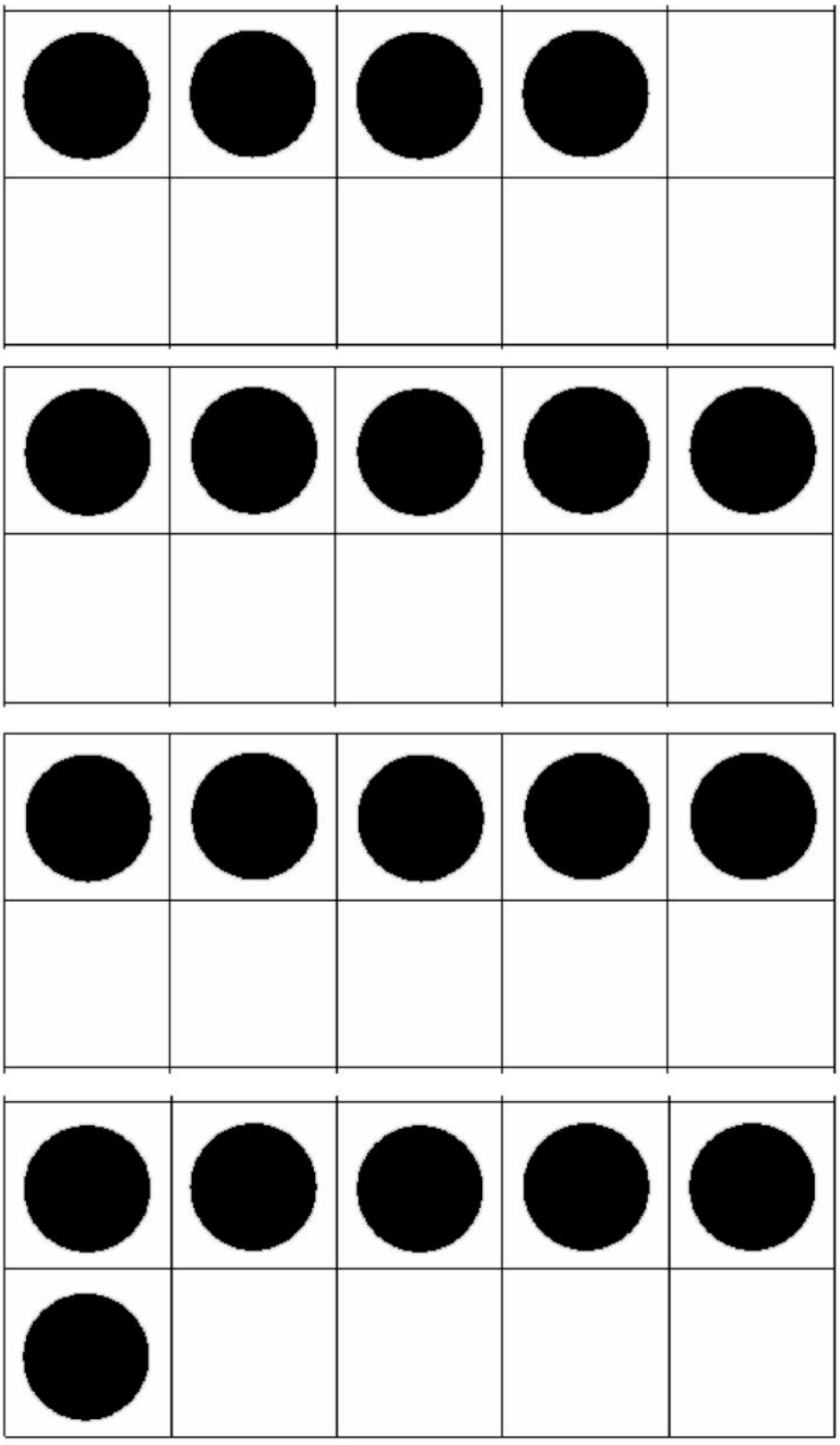
10 = _____ + 4

10 = _____ + 6

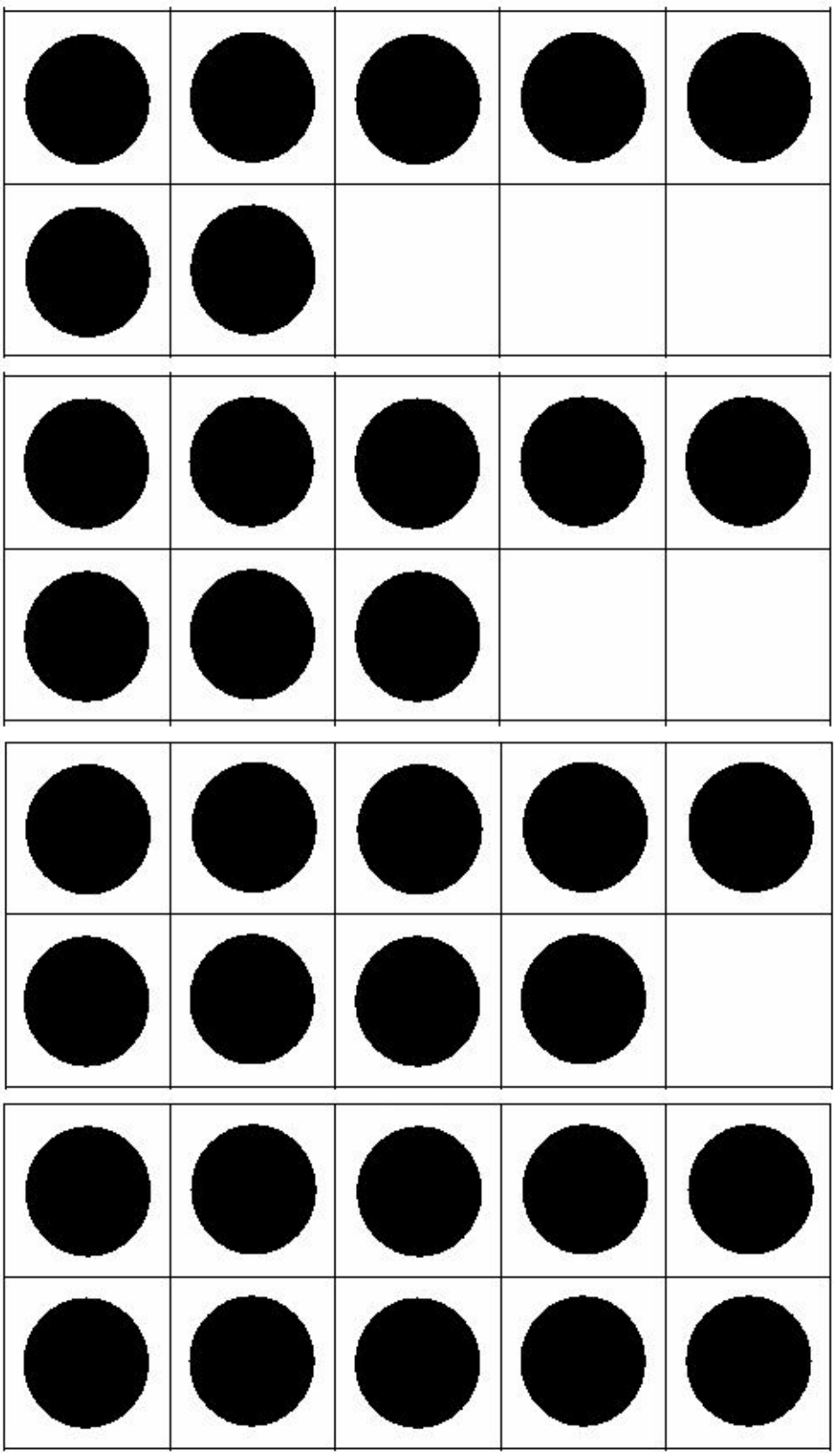
10 = _____ + 1



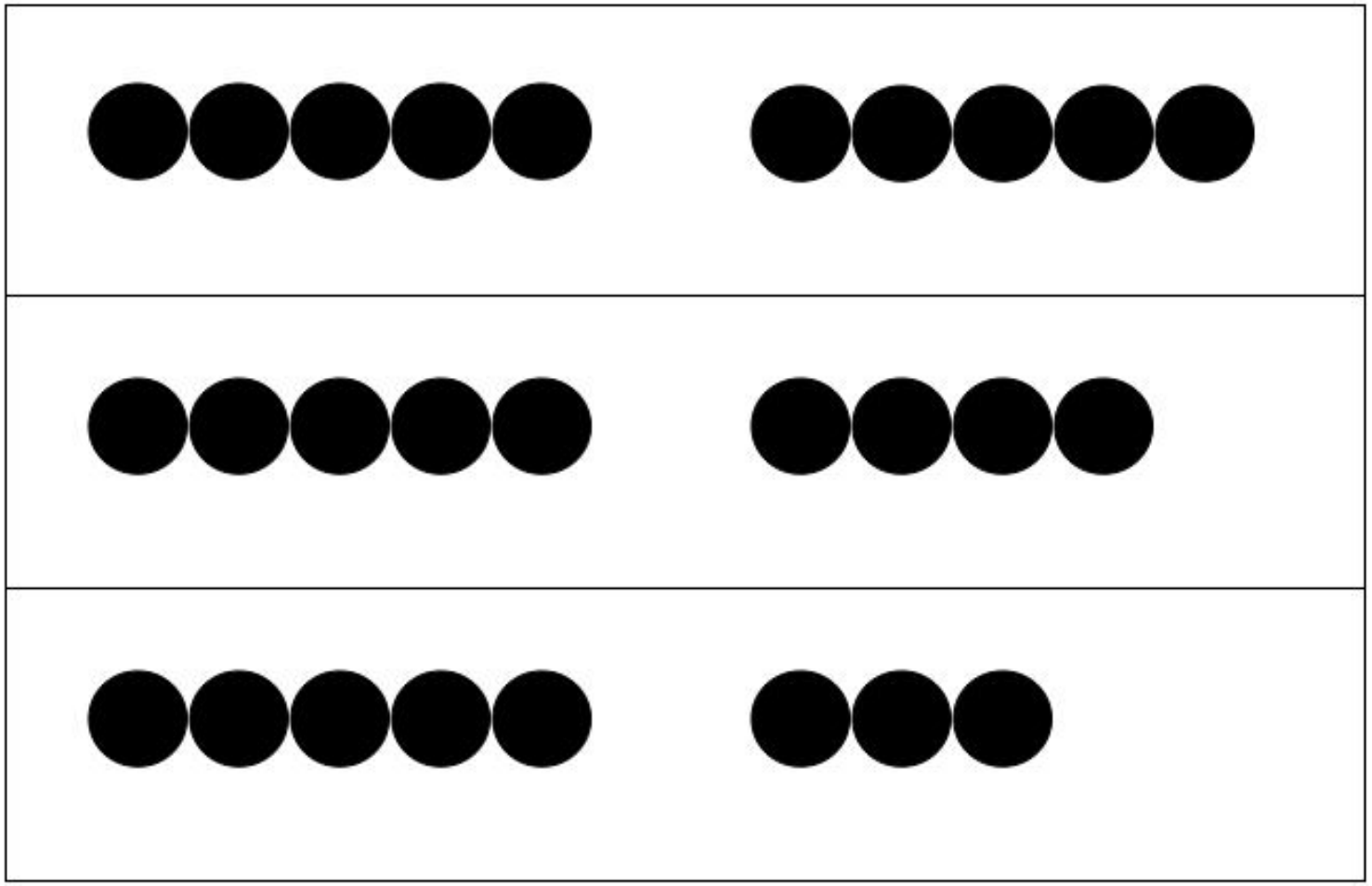
ten-frame cards



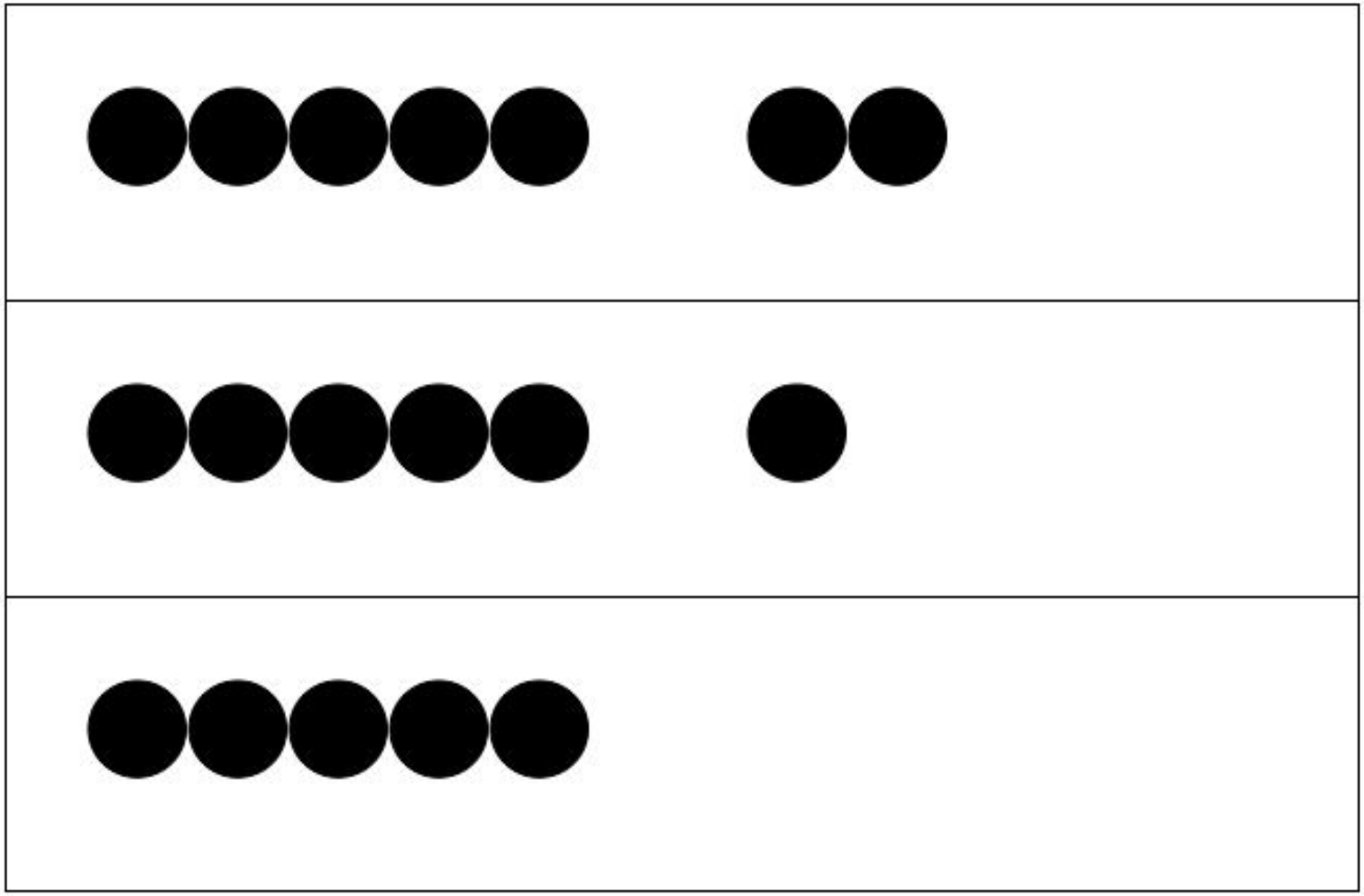
ten-frame cards



ten-frame cards



5-group column cards



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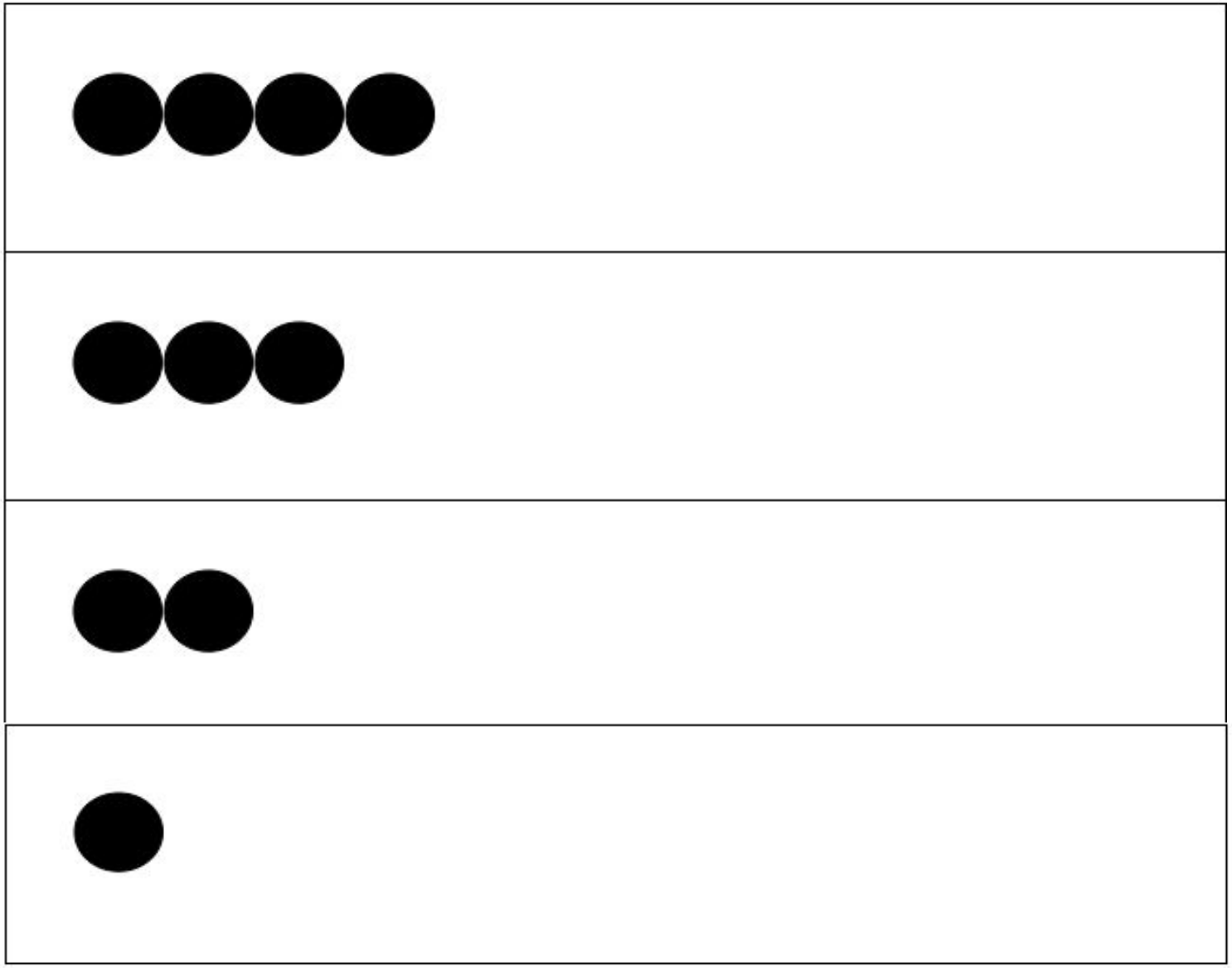
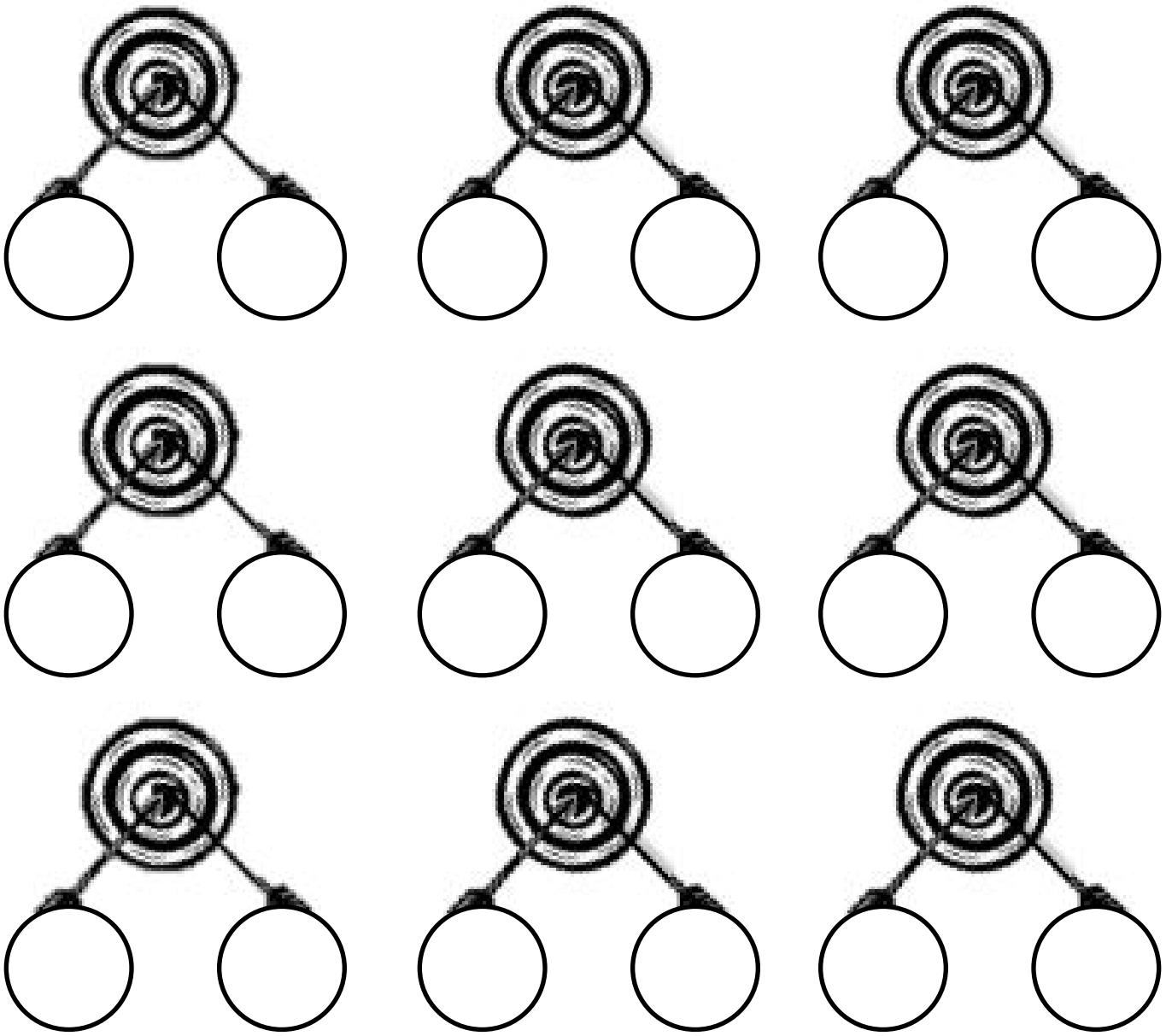


5-group column cards

Target Number:

Target Practice

Choose a *target number,* and write it in the middle of the circle on the top of the page. Roll a die. Write the number rolled in the circle at the end of one of the arrows. Then, make a bull's eye by writing the number needed to make your target in the other circle.



target practice