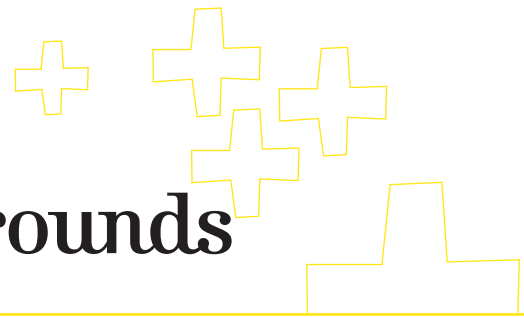# THE BOOK OF
FACTS

ADDITION

SAMPLE ACTIVITY

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Count-on-1 Turnarounds

Introduce

1 Make a laminated "shirt" for a coat hanger as shown below. On both sides of the shirt write the numeral **5**. Attach four clothespins (pegs) on one side and one clothespin on the other and display it to the students so that the four pins are on their left-hand side.
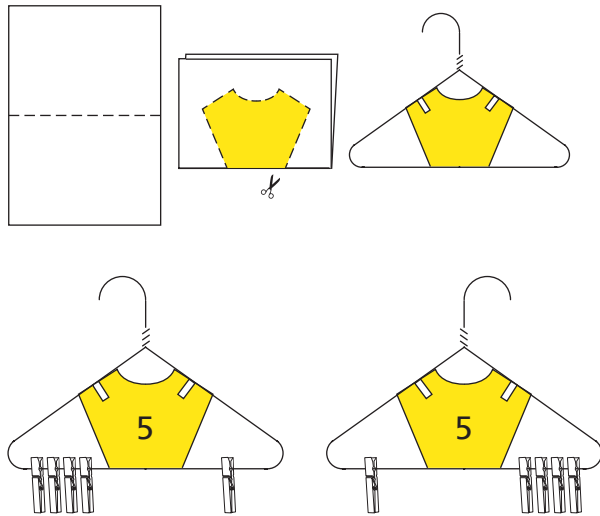
Ask, **What fact can you see?** (Four add one is five.) Turn the coat hanger to show the other side. Ask, **What fact can you see now?** (One add four is five.) **What do you notice?** Discuss how the parts and the totals are the same, but the order of how the parts are added has changed. Say, **Four add one is the same as one add four. These are called turnaround facts.** Erase the numeral on the "shirt" and repeat with other totals from **2** to **10**.

2 Show a domino that has six dots on the left-hand side and one dot on the right as seen by the students. Select an individual to say the expression (six add one). Turn the card to change the position of the dots and ask the student to say the expression they see (one add six). The students should identify the arrangements of dots as turnarounds. Repeat with the dominoes shown below.
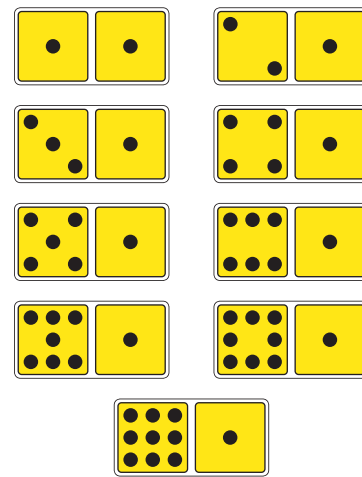
3 Use the materials from the previous two activities. Give one student a domino and have them say the expression. Another student can place clothespins (pegs) on the coat hanger to show the same expression. Instruct the rest of the class to write the number fact. Direct the students with the materials to turn them around, while the rest of the class write the turnaround number fact.
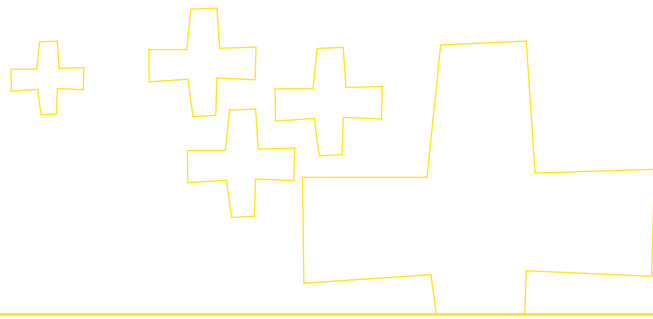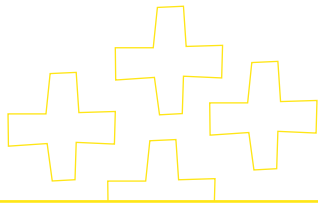
Reinforce

1 Reuse the count-on strategy cards from *Introduce* Activity 4 on page 8. Select a card and display it as shown below on the left. Turn the card as shown below on the right to show the students that they can begin with either number when they add.
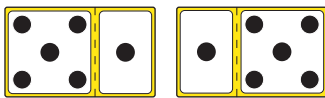
See: *Count-on Strategy Cards*

Ask, **What do you find easier to do: start with the greater number and count on one or start with one and count on the greater number?** Encourage them to explain their thinking. Demonstrate on a number track how it is easier to start with the greater number and count on 1.

$$5 + 1$$

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

$$1 + 5$$

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
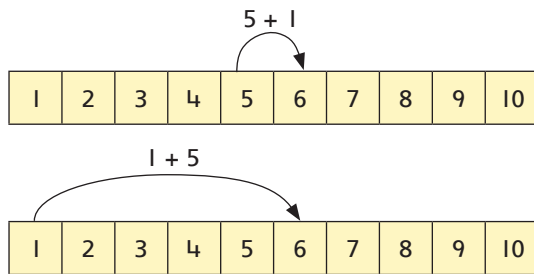
Have the students describe this count-on strategy with other cards from the set. Encourage them to start with the greater number and then count on the lesser number.

2 Make an overhead transparency of Blackline Master 11, or copy and laminate it. Write **1** in the hexagon. Ask volunteers to suggest different numbers between **1** and **9** to write in each circle. Call on other individuals to suggest numbers that can be written in each square so that, for each "spoke", the number in the circle equals the sum of the numbers in the hexagon and the square.

3 Reuse the count-on-1 flash cards from *Practice* Activity 2 on page 10 . If you made these cards, write the corresponding turnaround facts on the back of the cards as shown below. Otherwise, use the reverse side of your *Addition Flash Cards*. Copy Blackline Masters 7 and 12 and cut out the numeral cards. Display the 1 + 5 = ___ flash card and the 8 numeral card beside it. Ask, **Does this make sense? Why not?** Encourage the students to explain their thinking. Repeat with other pairs of matching and non-matching cards. Use addition facts that have 1 as the first addend and facts that have 1 as the second addend, so that students become familiar with the turnarounds.

1 + 1 = _	1 + 2 = _
1 + 3 = _	1 + 4 = _
1 + 5 = _	1 + 6 = _
1 + 7 = _	1 + 8 = _

1 + 9 = _
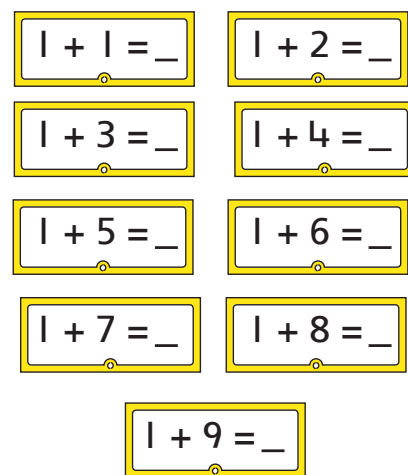
For double-sided count-on-1 cards
see: *Addition Flash Cards*
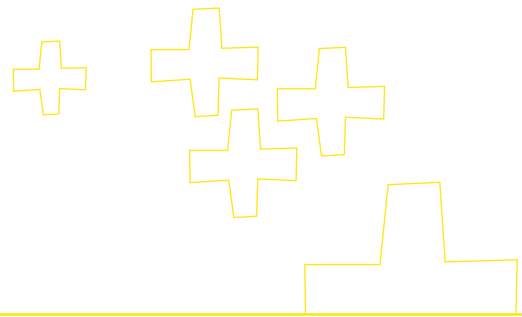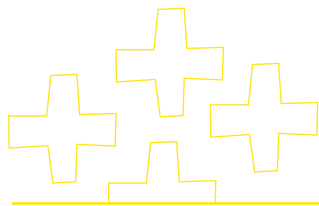
Practice

1 Reuse the count-on-1 **flash** cards from *Reinforce* Activity 3 on page 13. Display one card with the turnaround fact showing and select a student to say the answer. Allow a few seconds for the student to provide the answer (under three seconds is a quick response). Repeat a number of times.

2 Make a copy of Blackline Master 13 for each student. Read the instruction with the class and then direct them to complete the sheet individually.

3 Give each student a copy of Blackline Master 9 and twenty counters. Call out random count-on-1 expressions and ask the students to place a counter on each correct answer. When a student has four adjacent counters in a vertical, diagonal, or horizontal line they call out "Bingo" to win the game. The count-on expressions should range from 1 + 1 to 9 + 1, including turnarounds.

|				
(2)	7	2	(6)	8
(5)	(3)	(8)	3	(7)
9	6	(4)	9	4
8	10	7	(5)	10
5	4	9	8	6

When a student has four adjacent counters in a vertical, diagonal, or horizontal line they call out "Bingo" to win the game.

4 Give each student a copy of Blackline Master 10 and twenty counters. Repeat the previous activity by calling out numbers from 2 to 10. This time the students place a counter on the matching expression.
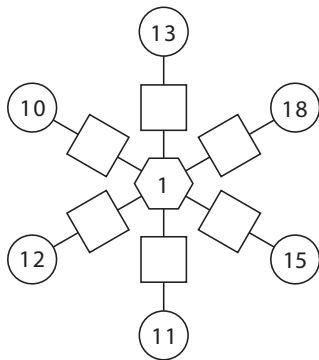
> **Fact File**
> In the operation of addition, the parts that are being joined together are called *addends*. The total that they form is called the *sum*.

5 Give each student a copy of Blackline Master 14. Direct them to fold the sheet into quarters so that they can see only the *Count-On-1* section. This assessment task should take no more than two minutes for the students to complete. A longer period of time may indicate that recall of the facts is not automatic. Collect the sheets afterward and record the results for each student on Blackline Masters 1 and 2. See page 4 of the *Introduction* for instructions.
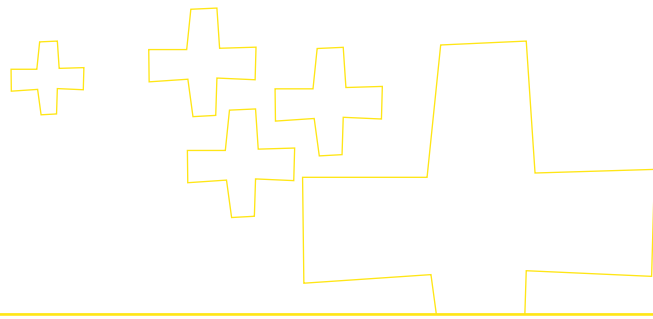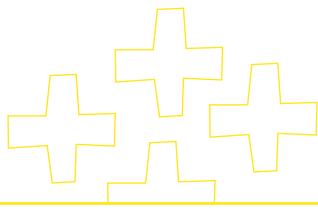
Extend

1 Write **1 + ___ = ___** on the board. Ask the students to say numbers that will make the sentence true. For each combination, encourage the students to explain how they figured out the numbers. As the students become confident, they may use numbers that are beyond the number fact range.

2 Make an overhead transparency of Blackline Master 11, or copy and laminate it. Write **1** in the hexagon. Ask volunteers to suggest different numbers between **10** and **19** to write in each circle. Call on other individuals to suggest numbers that can be written in each square so that, for each "spoke", the number in the circle equals the sum of the numbers in the hexagon and the square. Repeat with other numbers from **20** to **29**.


3 Write **___ + ___ = 18** on the board. Ask the students to suggest a count-on-1 fact that will make the sentence true. Repeat for other totals between 10 and 30. At a later stage, repeat the activity with the sum on the left-hand side, for example, **18 = ___ + ___**.

> ### Fact File
> An *equation* is a number sentence that shows two expressions are equal. In simple equations like 4 + 2 = 6, writing the sum on the left-hand side (6 = 4 + 2) helps students understand that the equals symbol is not an instruction to figure out an answer. Instead, it is a way of showing equality or balance.

4 Draw the number line below on the board or on an overhead transparency. Ask, **What number could be at the start of the jump?** (Twenty-four.) **If it is twenty-four, what number will be at the other end? How do you know?** (Twenty-four count on one is twenty-five.) Redraw the "jump" arrow in a different position and repeat.
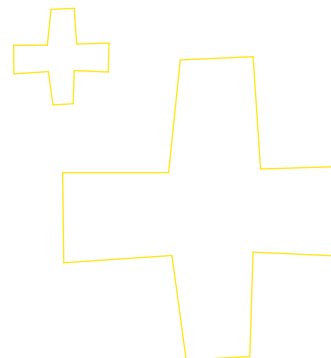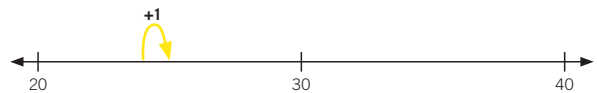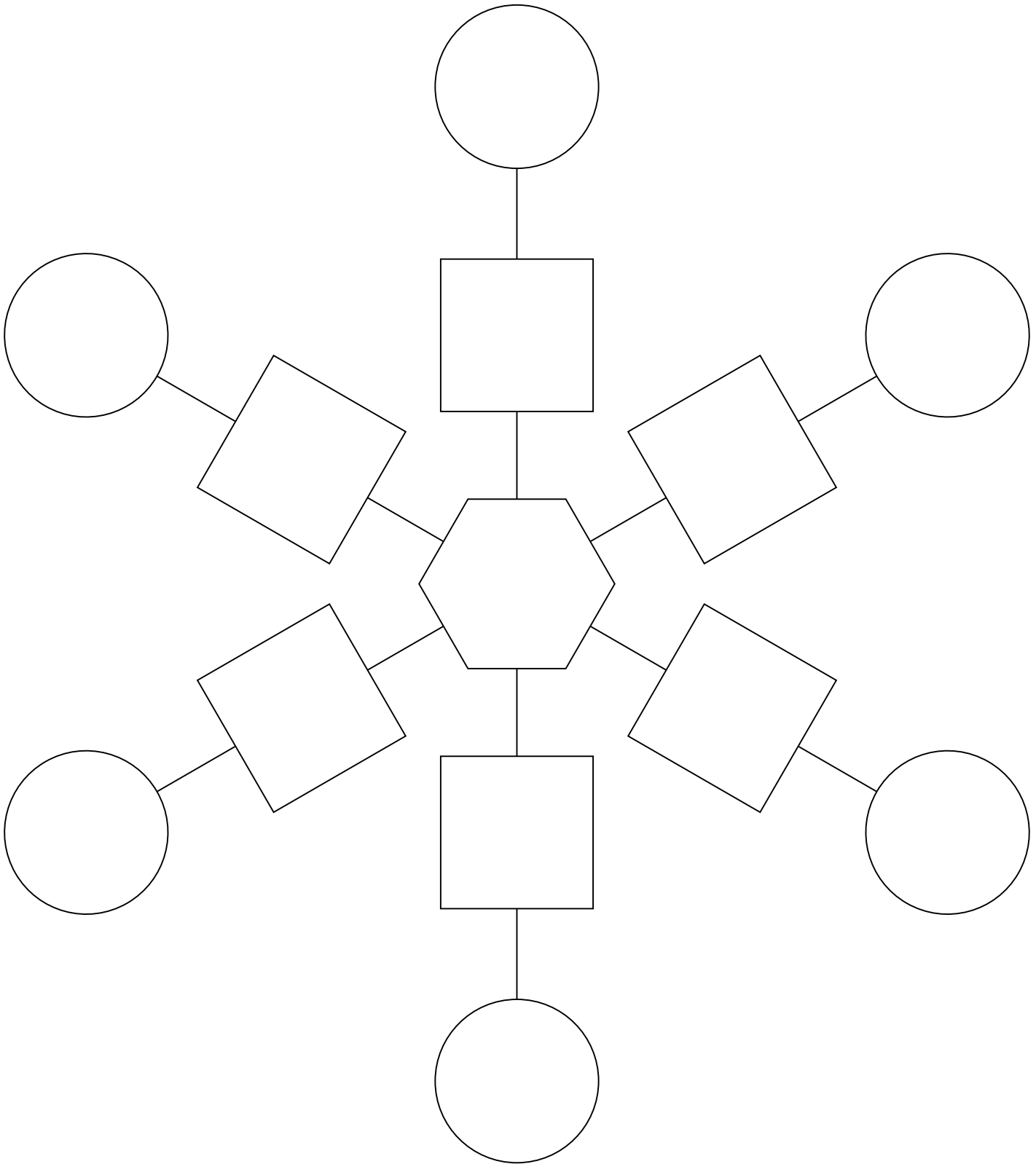
Total Bingo

2	7	2	6	8
5	3	8	3	7
9	6	4	9	4
8	10	7	5	10
5	4	9	8	6

Count-on Bingo

1 + 1	7 + 1	4 + 1	1 + 7	9 + 1
1 + 5	6 + 1	9 + 1	1 + 6	3 + 1
1 + 3	2 + 1	1 + 8	5 + 1	1 + 4
5 + 1	1 + 9	7 + 1	1 + 4	2 + 1
8 + 1	1 + 2	1 + 6	3 + 1	1 + 8

Super Spokes

Numeral Cards 10 to 18
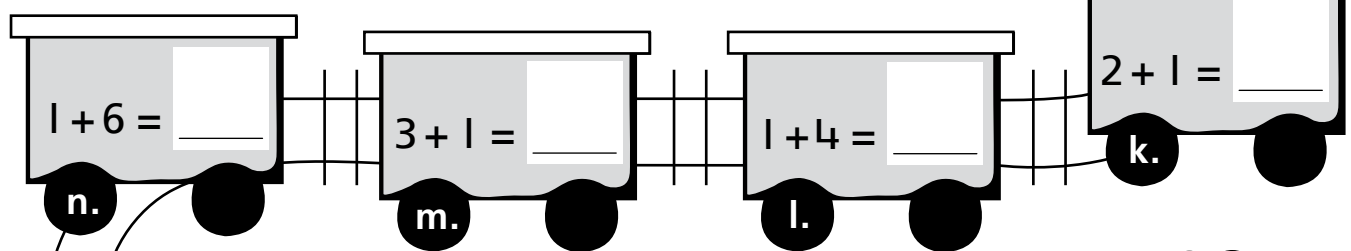
10	11	12
13	14	15
16	17	18

All Aboard

Name: _____

Complete each number fact.

a. $1 + 1 =$ _____

b. $1 + 5 =$ _____

c. $8 + 1 =$ _____

d. $1 + 3 =$ _____

g. $1 + 8 =$ _____

f. $1 + 2 =$ _____

e. $6 + 1 =$ _____

h. $4 + 1 =$ _____

i. $1 + 7 =$ _____

j. $9 + 1 =$ _____

k. $2 + 1 =$ _____

n. $1 + 6 =$ _____

m. $3 + 1 =$ _____

l. $1 + 4 =$ _____

o. $5 + 1 =$ _____

p. $1 + 9 =$ _____

q. $7 + 1 =$ _____
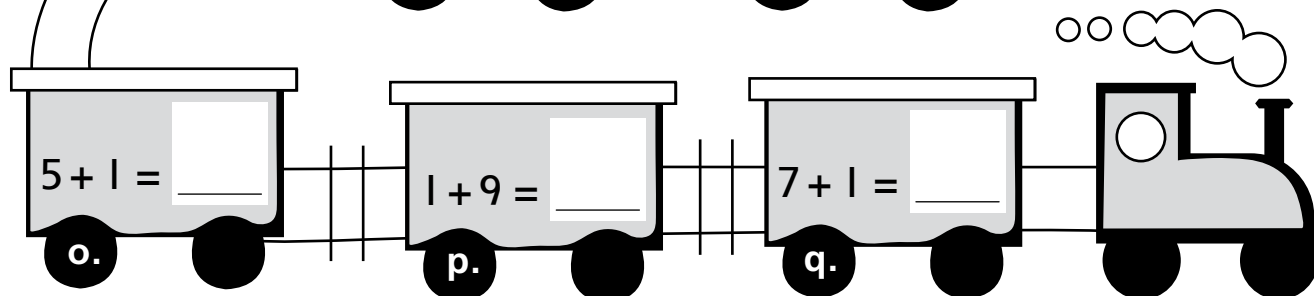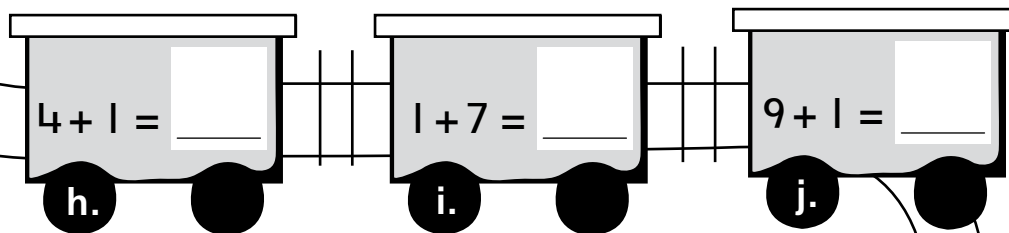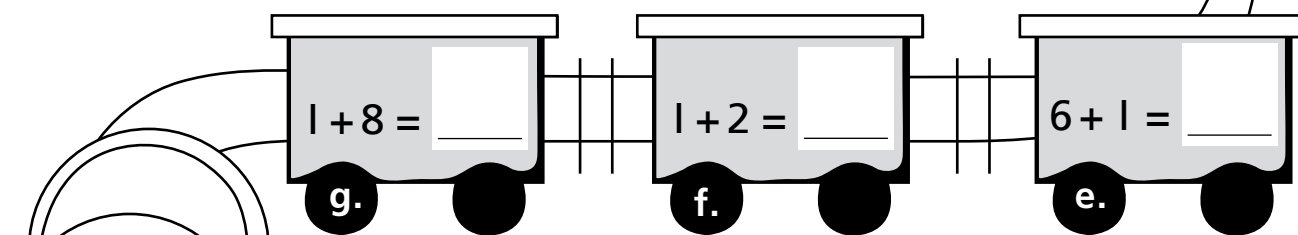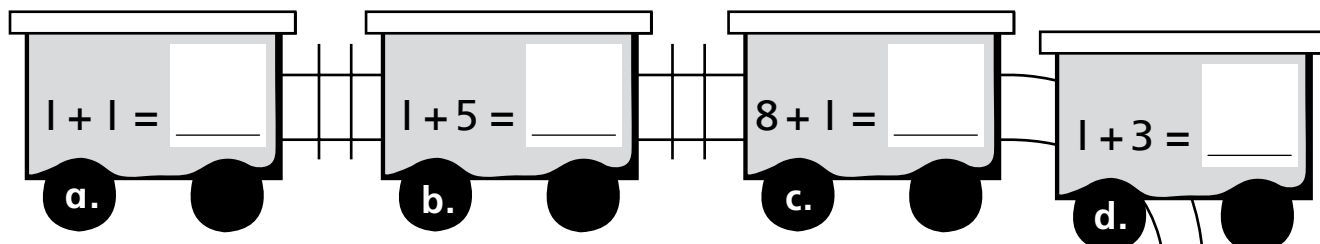
Count on 1

Write the answers as fast as you can.

5 + 1 = ____   4 + 1 = ____   1 + 2 = ____

2 + 1 = ____   1 + 1 = ____   7 + 1 = ____

1 + 8 = ____   1 + 7 = ____   1 + 5 = ____

6 + 1 = ____   3 + 1 = ____   8 + 1 = ____

1 + 3 = ____   1 + 4 = ____   1 + 6 = ____

9 + 1 = ____   1 + 9 = ____

Count on 2

Write the answers as fast as you can.

4 + 2 = ____   9 + 2 = ____   6 + 2 = ____

2 + 6 = ____   2 + 2 = ____   2 + 8 = ____

8 + 2 = ____   2 + 3 = ____   5 + 2 = ____

3 + 2 = ____   7 + 2 = ____

2 + 5 = ____   2 + 4 = ____

2 + 7 = ____   2 + 9 = ____

Count on 3

Write the answers as fast as you can.

3 + 3 = ____   4 + 3 = ____

5 + 3 = ____   3 + 6 = ____

3 + 7 = ____   8 + 3 = ____

9 + 3 = ____   3 + 5 = ____

3 + 4 = ____   3 + 9 = ____

6 + 3 = ____   7 + 3 = ____

3 + 8 = ____

Count on 0

Write the answers as fast as you can.

5 + 0 = ____   0 + 1 = ____   2 + 0 = ____

0 + 2 = ____   0 + 5 = ____   0 + 0 = ____

8 + 0 = ____   0 + 8 = ____   0 + 7 = ____

4 + 0 = ____   7 + 0 = ____   6 + 0 = ____

0 + 6 = ____   1 + 0 = ____   0 + 4 = ____

0 + 9 = ____   9 + 0 = ____

3 + 0 = ____   0 + 3 = ____