

At-Home Activities from *Investigations 3*

Today's Number

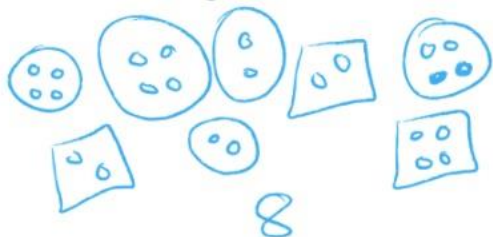
Today's Number develops number sense and computational fluency across the grades. In this activity students find and record ways to make a given number, sometimes using specific constraints.

Kindergarten

Provide a set of 8 [buttons] and ask, "How many are there?"

Provide some [pennies] and ask, "Can you make a set that has the same amount as the [buttons]?"

Ask, "You said there were 8. How could you show on paper that there were 8?"



Try More

- "Can you find another way to show 8?" (Some students write the number or the word. Others draw 8 pictures, hashmarks, or fingers. Many use a combination.)
- Repeat the activity with a different number, up to 20.
- Repeat the activity but use 2 or 3 subsets of related objects (e.g. red buttons and blue buttons).

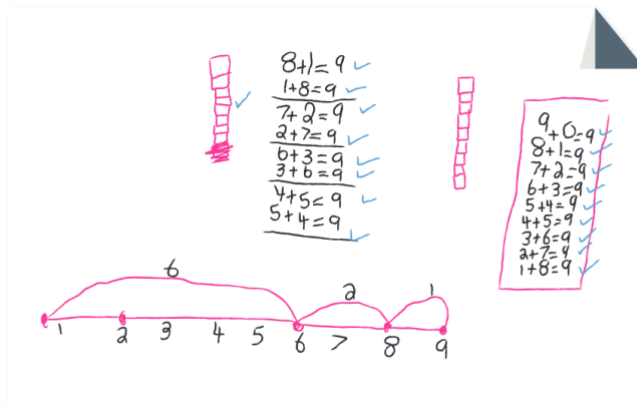
Resources

MWI: [The Counting Jar](#)

(CCSS: K.CC.A.1, K.CC.A.3, K.CC.B.4, K.CC.B.4.A, K.CC.B.4.B, K.CC.B.5)

Grade 1

Today's Number is 9. Find some ways to make 9. Show the ways you found. For example:



How do you know this one equals 9?

What do you know about 9 that helped you decide what numbers to use?

Try More

- Find ways with more than 2 addends or ways that use subtraction.
- "You found lots of ways with 2 addends. Do you think you found all of the ways that use 2 addends? How do you know?"
- Repeat the activity with another number between 0-20.

Resources

MWI: [Today's Number](#)

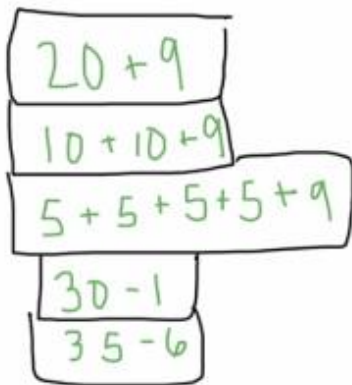
(CCSS: 1.OA.B.3, 1.OA.C.6)

Today's Number

Today's Number develops number sense and computational fluency across the grades. In this activity students find and record ways to make a given number, sometimes using specific constraints.

Grade 2

Today's Number is 29. Find some ways to make 29 using addition and subtraction. Record the ways you find. For example:



Hand-drawn boxes containing the following equations:

- $20 + 9$
- $10 + 10 + 9$
- $5 + 5 + 5 + 5 + 9$
- $30 - 1$
- $35 - 6$

*How did you know this one equals 29?
 What do you know about 29 that helped you decide what numbers to use?*

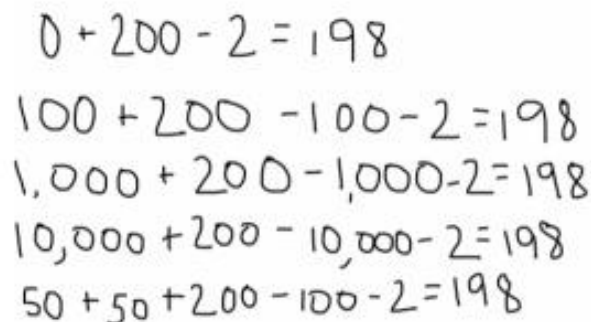
Try More

- Repeat the activity with another number between 10-100.
- Find all of the ways to make 29 with 2 addends.

(CCSS: 2.NBT.B.5)

Grade 3

Today's Number is 198. Find some ways to make 198 using at least 3 numbers and both addition and subtraction. Record the ways you find. For example:



Hand-drawn equations:

- $0 + 200 - 2 = 198$
- $100 + 200 - 100 - 2 = 198$
- $1,000 + 200 - 1,000 - 2 = 198$
- $10,000 + 200 - 10,000 - 2 = 198$
- $50 + 50 + 200 - 100 - 2 = 198$

*How did you know this one equals 198?
 What do you know about 198 that helped you decide what numbers to use?*

Try More

- Repeat the activity with another number between 100-1,000.
- Repeat the activity using at least one combination that adds to 100. For example: $60 + 40 + 100 - 2 = 198$.

(CCSS: 3.NBT.A.2)

Today's Number

Today's Number develops number sense and computational fluency across the grades. In this activity students find and record ways to make a given number, sometimes using specific constraints.

Grade 4

Today's Number is 348. Find ways to make 348 using at least one multiple of 10 or 100, and only subtraction in each expression. For example:

$$\begin{array}{r}
 348 \\
 400 - 50 - 2 \\
 1,000 - 500 - 100 - 40 - 12 \\
 2,000 - 1,400 - 200 - 30 - 22
 \end{array}$$

How do you know these expressions equal 348? What do you know about 348 or what do you know about subtraction that helped you decide what numbers to use?

Try More

Choose a different number between 200 and 1,000, and use the same constraint.

Use a different constraint, such as:

- Use a combination of 100 in each expression. E.g., for 425: $15 + 85 + 300 + 25$ and $39 + 61 + 250 + 75$.
- Use addition and multiples of 10. E.g., for 562: $500 + 50 + 10 + 2$ and $80 + 20 + 450 + 12$.
- Use addition, subtraction, or both. E.g., for 471: $600 - 200 + 50 + 30 - 9$ and $300 + 150 + 21$.

(CCSS: 4.NBT.B.4)

Grade 5

Today's Number is 648. Find 10 ways to make 648 using only multiplication and addition. For example:

$$\begin{array}{l}
 648 \\
 300 \times 2 + 48 \quad 2 \times (300 + 24) \quad 6 \times (100 + 8) \\
 (3 \times 200) + (6 \times 8) \quad (120 \times 5) + (3 \times 16) \\
 (5 \times 100) + (2 \times 74) \quad (250 \times 2) + (4 \times 37) \\
 (50 \times 5 \times 2) + (2 \times 5 \times 3) + (3 \times 2 \times 3) \\
 (2 \times 2 \times 5 \times 5 \times 2 \times 3) + (2 \times 2 \times 2 \times 3 \times 2) \\
 (25 \times 4 \times 2) + (8 \times 7 \times 2 \times 4)
 \end{array}$$

How do you know these expressions equal 648? What do you know about 648, or about multiplication and addition, that helped you decide what numbers to use?

Try More

Use the same constraint with a different number between 500 and 5,000.

Use a different constraint. For example, create 10 expressions that:

- Equal 3,300, using multiplication and no more than 2 factors. E.g., 1650×2 and 50×66 . (Some other numbers to use: 800, 5,600, and 4,824. Can you find more?)
- Equal 1,800, using multiplication. Each expression must have 3 factors, and none of the factors can be 1. E.g., $3 \times 20 \times 30$ and $6 \times 20 \times 15$. (Some other numbers to use: 720, 3,300, and 900. Can you find more?)

(CCSS: 5.NBT.B.5)