

# Number link challenges



Take students on a scavenger hunt in the school or classroom, or on the playground—or have them do it at home—and help them find numbers in real life. They can take photos or draw the number links they see, such as shape (triangles for three), name (classroom 4), quantity (six windows), or order (first-place ribbon).

Challenge older students to find applications of larger numbers, like the twelve numbers on a clock, or a building with twenty windows in an arrangement of  $5 \times 4$ , a visual application of multiplication. What are the largest numbers they can find? Can they estimate these quantities and then count them?

Extra challenges make this activity appropriate for students in the upper grades:

- Suggest specific topics and challenge students to come up with relevant linkages for each number and explain their reasoning. For example, animals, musical instruments, and architectural features related to a number.
- Have a daily classroom “number link” question asking students to find the numerical connection between seemingly unrelated ideas, such as this: What do Mount Rushmore and a ukulele have in common? (Answer: Four presidents on Mt. Rushmore and four strings on the ukulele.)

A student assigned to the number 5 might think of a starfish (5 legs), a banjo (5 strings), and a pentagonal room.

and four strings on the ukulele.) Invite students to submit these questions, which can be pulled from other subjects (e.g., history, science, art) and can be increasingly difficult.

- Have students make a collage from number links found in newspapers or magazines (e.g., the picture of the two-hour parking sign illustrates the number link 2)

This activity is easily adaptable to a variety of environments and promotes the development of observation skills, number sense, and the ability to make interdisciplinary connections.

Rebecca Klemm, [Rebecca@numbersaline.org](mailto:Rebecca@numbersaline.org), a.k.a. The Numbers Lady, is an accomplished mathematician, statistician, world traveler and teacher. Since receiving her PhD in statistics, she has specialized in explaining mathematical concepts via everyday language. She has taught students in pre-K–PhD level. Edited by Martha Hildebrandt, [mhildebrandt@chatham.edu](mailto:mhildebrandt@chatham.edu), who teaches undergraduate and graduate mathematics education and mathematics courses at Chatham University in Pittsburgh, Pennsylvania; and Theodore Chao, [chao.160@osu.edu](mailto:chao.160@osu.edu), an assistant professor of mathematics education at The Ohio State University in Columbus, Ohio. Submit your quick game, puzzle, activity, or instructional strategy along with suggestions for how teachers of different grade bands (K–1, 2–3, 4–6) can use this idea. Send submissions of no more than 250 words to this department by accessing <http://tcm.msubmit.net>. See detailed submission guidelines for all departments at <http://www.nctm.org/tcmdepartments>.

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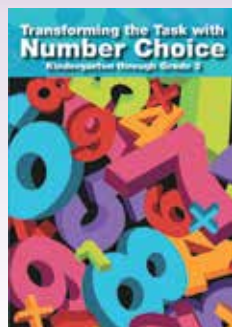
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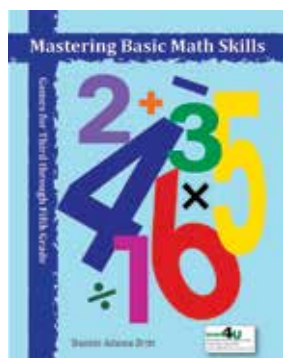


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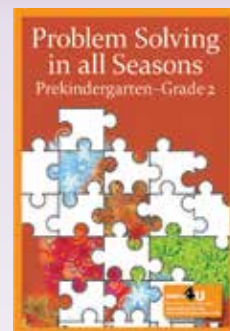


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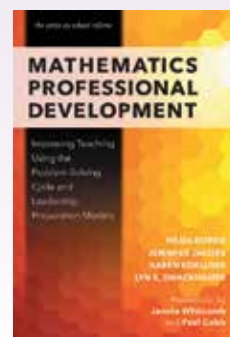
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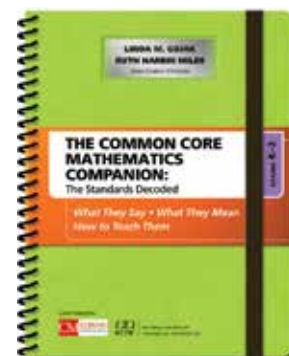
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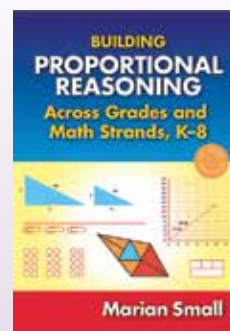
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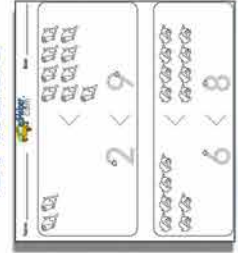


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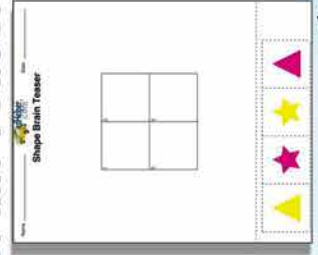
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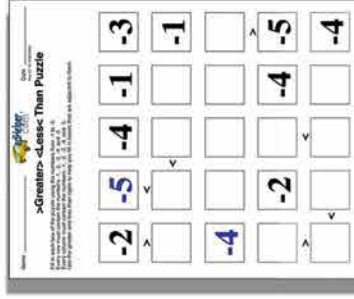
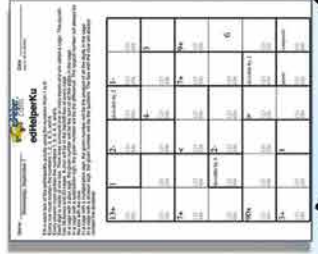
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