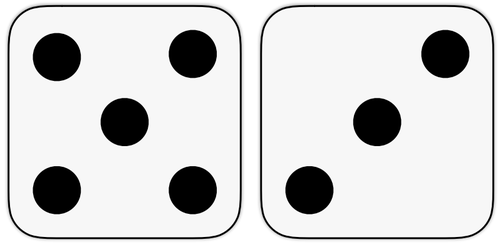
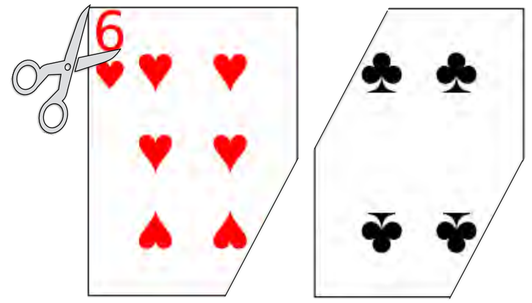
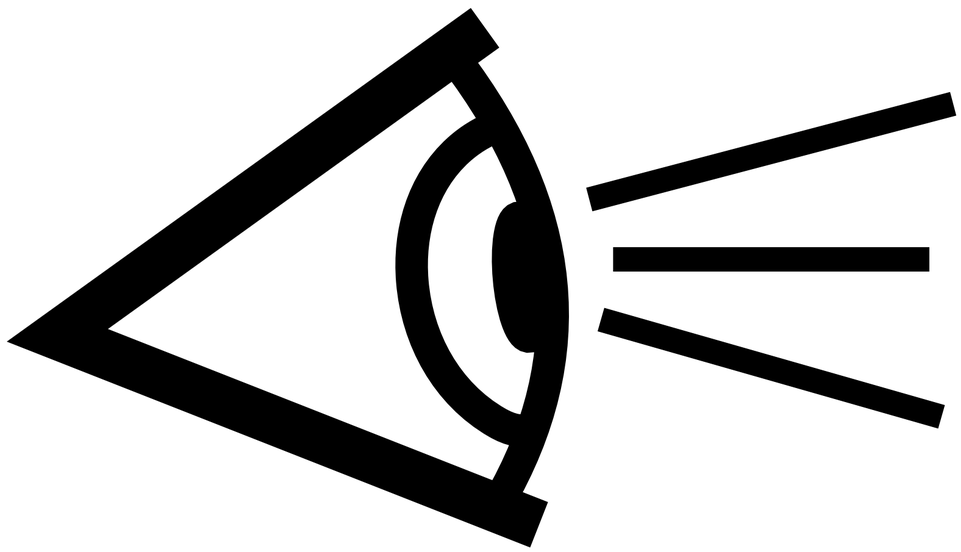
COUNT WITH YOUR EYES





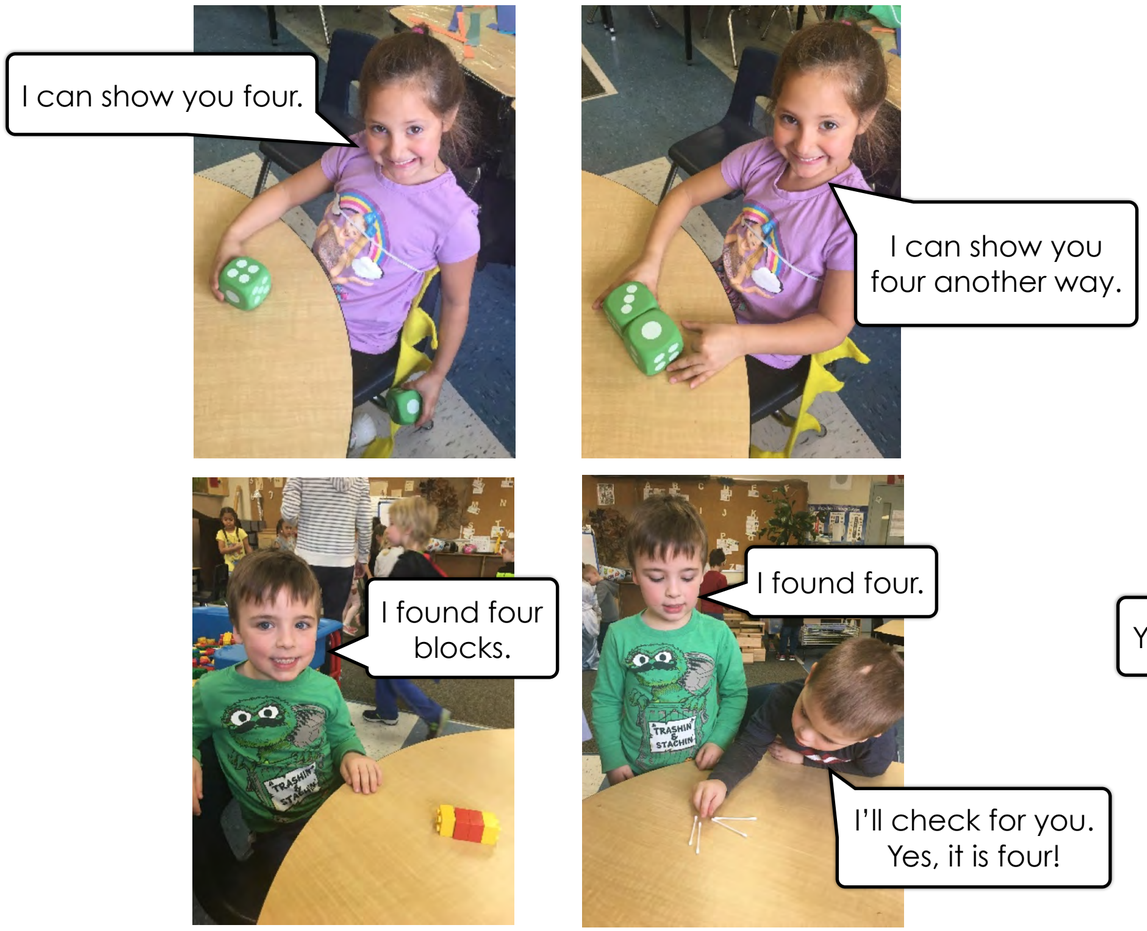


PARENT GUIDE

SUBITIZE with me, PLEASE!

The ability to subitize - pronounced “soo-beh-tize” - is an important part of developing a strong mathematical foundation. Subitizing is the ability to ‘see’ a small amount of objects and know how many there are without counting.

Subitizing is what tells you what number you roll on a six sided dice – most adults no longer have to count the pips after playing board games for a while. Subitizing is a fundamental skill in the development of students’ understanding of number (Baroody 1987, 115).



Help your child develop subitizing skills and a sense of quantity. Playing with dice, dominoes, and asking your child to find a specific number of items from around your home will help.

Asking your child to guess how many items you are holding or asking “which is larger” will help develop the ability to estimate, which is also an important mathematical skill.

TRY THIS!

Look at the Dots to the Right:

Look at the dots to the right and then look away.
Make a picture in your mind of what you saw.
Now, describe what you see in your mind to someone else.
It's highly likely that you "see" it differently in your mind.

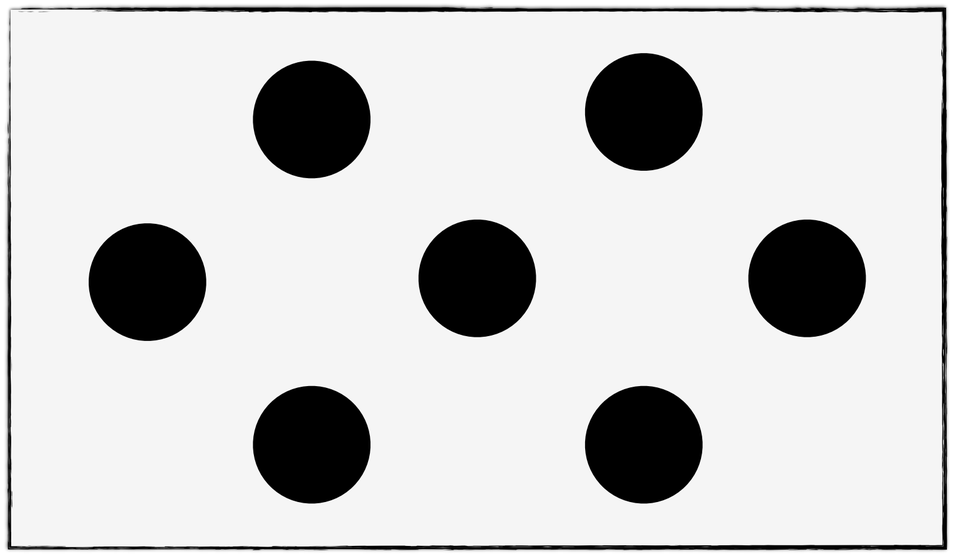


Image Shared by:
Jo Boaler, YouCubed.org

How Did You "SEE" the Dots?

FLIP THE PAGE TO COMPARE!

Stages of Subitizing Development

1. Perceptual Subitizing

When the number of items we are counting is small, we **perceptually subitize** to "**see**" the count suddenly.

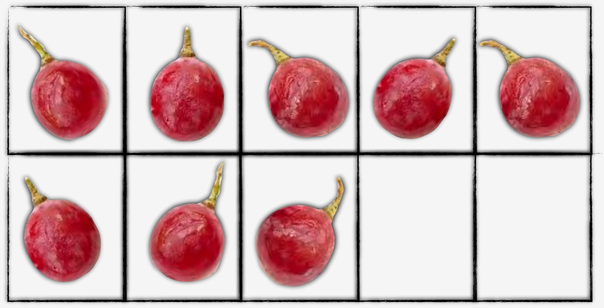
Most can develop the skill to perceptually subitize quantities of 5 items or less.

How many grapes do you see?

2. Conceptual Subitizing

When the number of items we are counting is too large to "see", we **conceptually subitize** to "**know**" the count suddenly.

When quantities are larger (say, 5 or more), our brains decompose the group into smaller "chunks" and then add them together.



How many grapes do you see?

How Did You "SEE" the Dots?

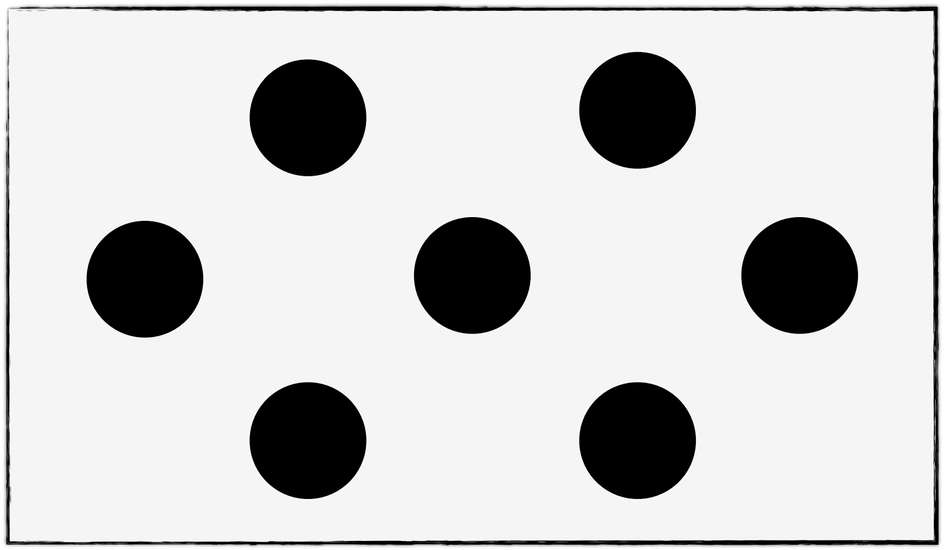
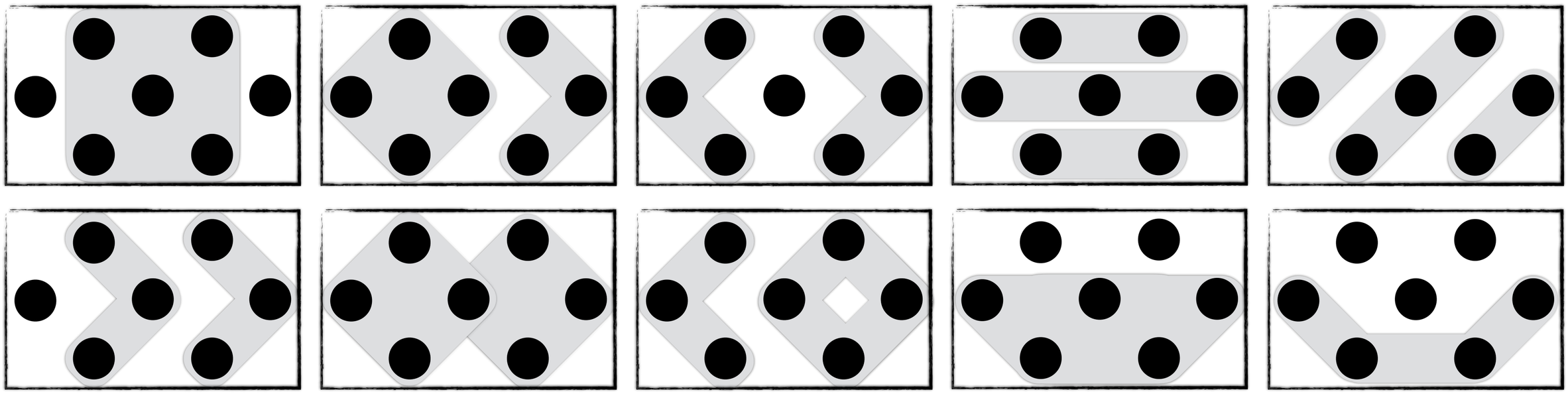


Image Shared by: Jo Boaler, YouCubed.org

Even though we are looking at the same dots, it is quite possible that the way you visualized these dots in your mind was different than the next person. This is because the number of dots you are visualizing is too difficult to subitize in a single group.

Here are just a few of the many ways people have described how they visualized the dots in their mind:



Watch a Visual Dot Card Number Talk

Watch Jo Boaler, Professor from Stanford University and co-founder of youcubed.org lead a group of students through a visual dot card number talk using this same exercise!

Found on: youcubed

kylep.ca/visualdotcard

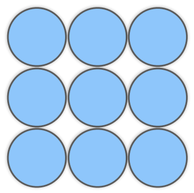
SUBITIZING AT HOME

Games and Tools for Subitizing

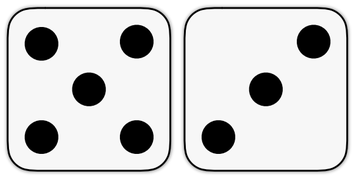
You can help develop your child's foundational mathematics skills at home by making use of the following games and tools for subitizing:

FINGERS

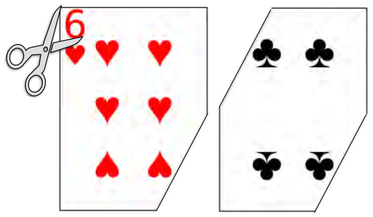
COUNTERS



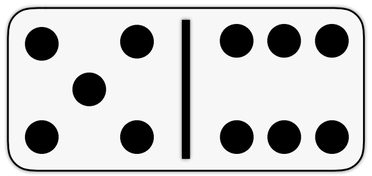
DICE



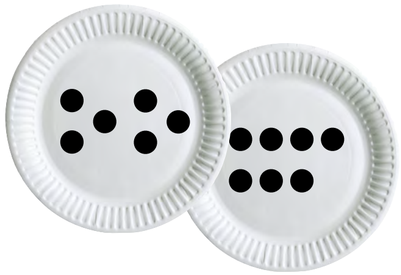
PLAYING CARDS



DOMINOS



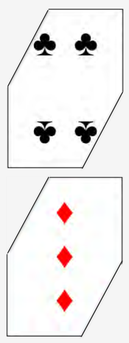
DOT PLATES



Make 5 / Make 10

Use fingers, dice, playing cards with the corners cut off, dominos or dot plates to "make 5" or "make 10".

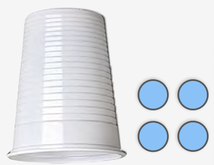
War!



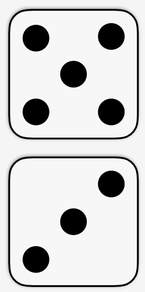
Using dice, playing cards, or dot plates, two players roll dice, flip a card or dot plate and each player says their number. Player with the higher number wins the round.

Cover It Up!

One player shows how many counters they have in total. Then, hide some of the counters under the cup while the opponent closes their eyes. How many are under the cup?



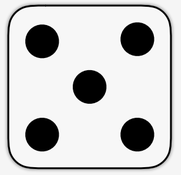
First to 20

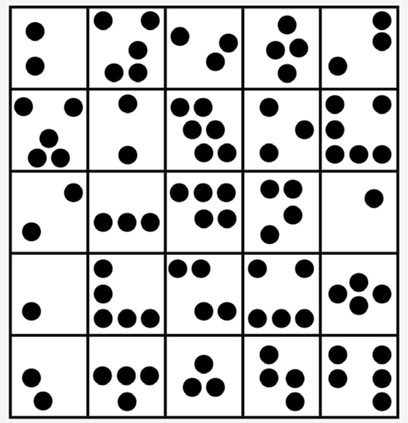


Using dice, take turns rolling 1 or 2 dice. Say the number rolled and record using a tally chart. First player to 20 wins.

Find It!

Take turns rolling dice. Find the same number of dots and cover it with your colour counter. Get 3 of your counters in a line and you win!





Print Game Board: **kylep.ca/findit**

ONLINE TOOLS AND RESOURCES

Online Tools and Websites to Promote Counting and Subitizing at Home

You can help develop your child's foundational mathematics skills at home by making use of the following games and tools for subitizing:

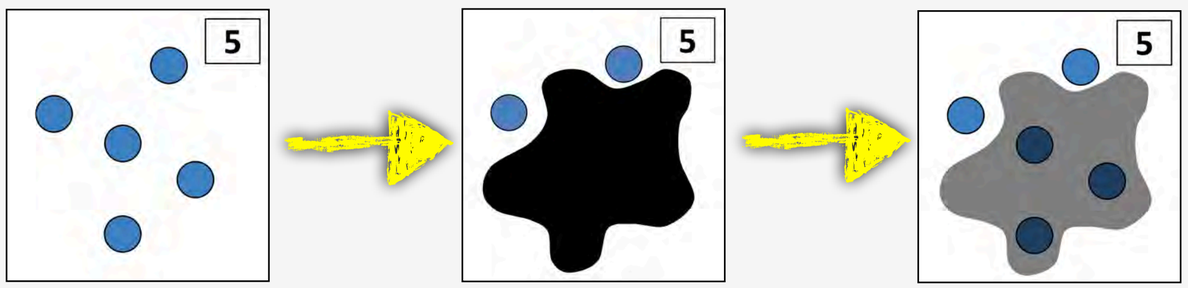
Counting Principles

Video and image prompts for visualizing subitizing and other principles of counting and quantity.

MATH is VISUAL

mathisvisual.com

kylep.ca/counting



kylep.ca/splat

SPLAT! by Steve Wyborney

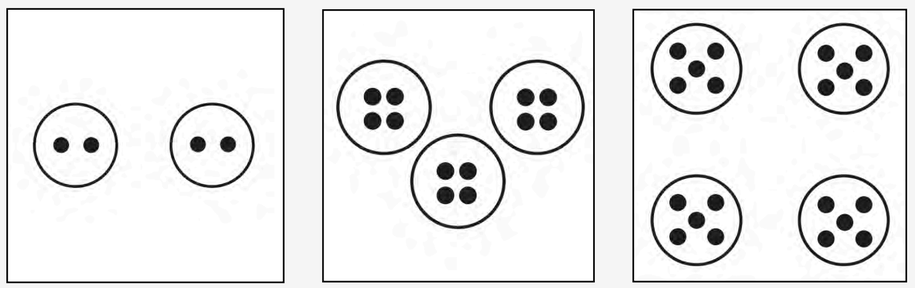
Show your kids some dots, then SPLAT! Now, some are covered up. How many dots are under the splat? Over 50 "SPLAT!" experiences to engage your children in subitizing!

Multiplication Dot Cards

Subitizing dot cards that you can use to begin promoting equal groups and multiplication! A variety of printable resources for number sense.

Fletchy

gfletchy.com



kylep.ca/dotmultiply

PRACTICE WITH THESE DOT CARDS AT HOME

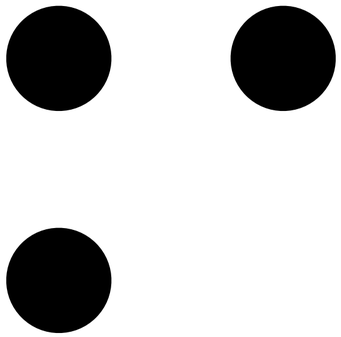
Cut out these dot cards to help your children build their subitizing skills and develop early number fluency at home!

DOT CARDS

SUBITIZING SET #1

Set #1

Set #1



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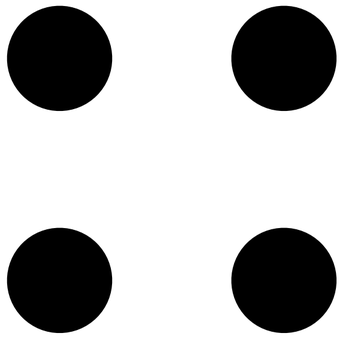

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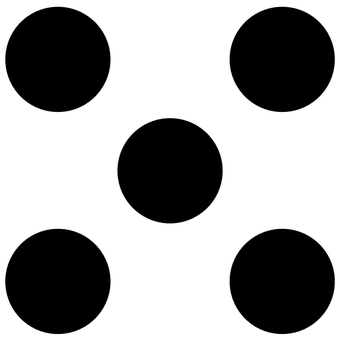

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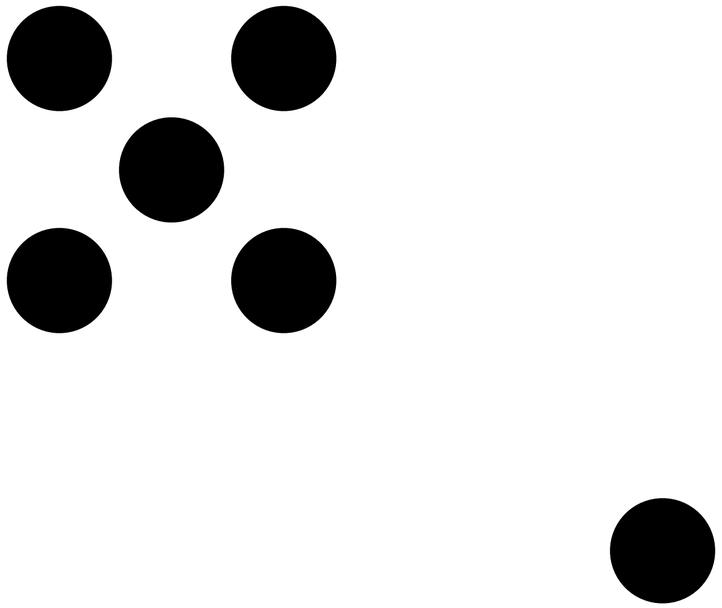

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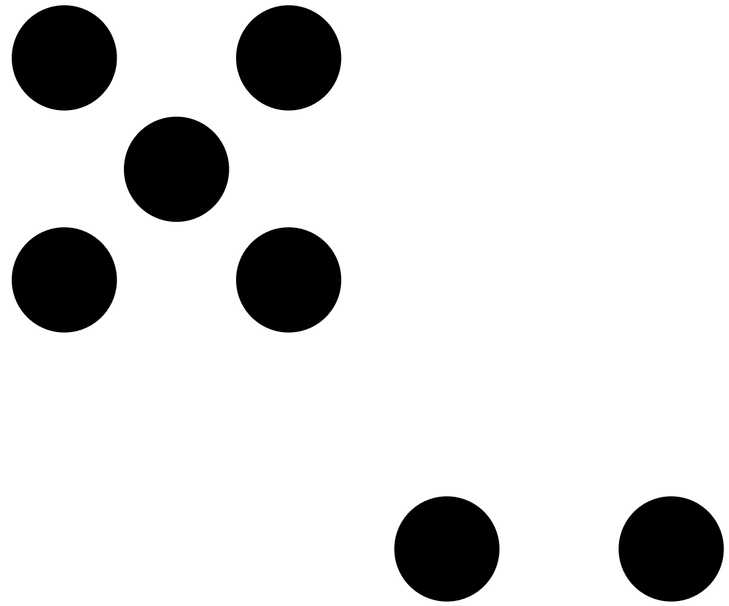

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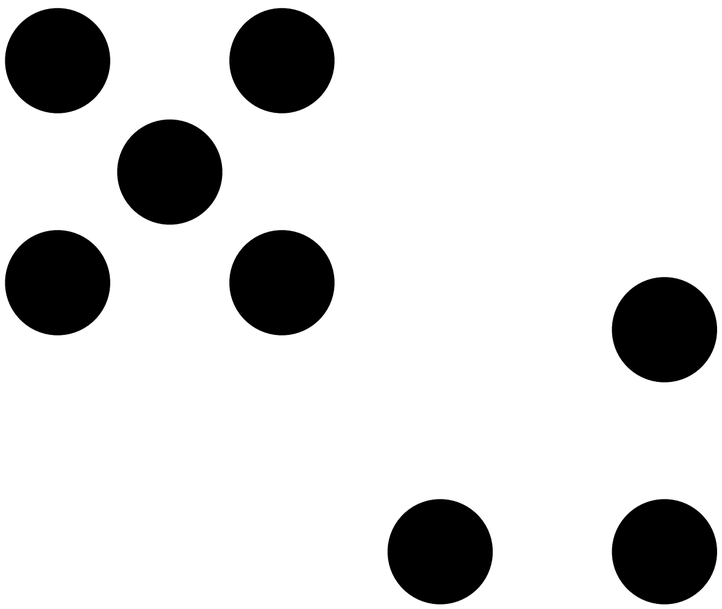

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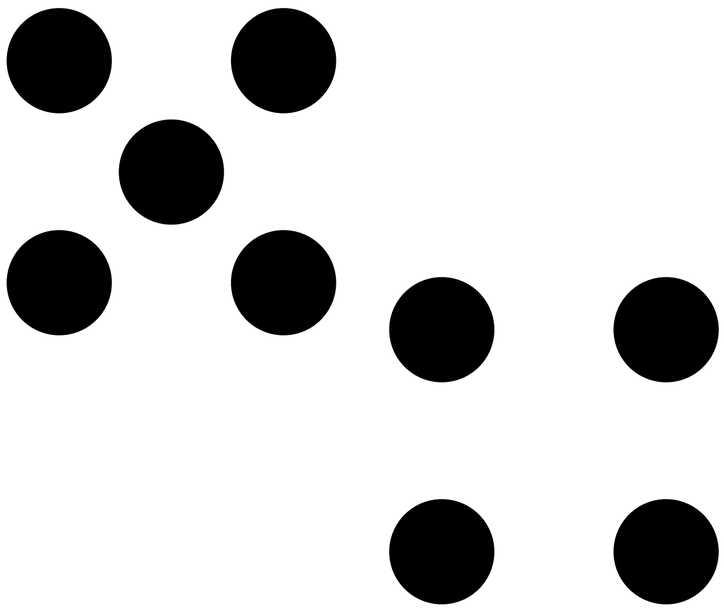

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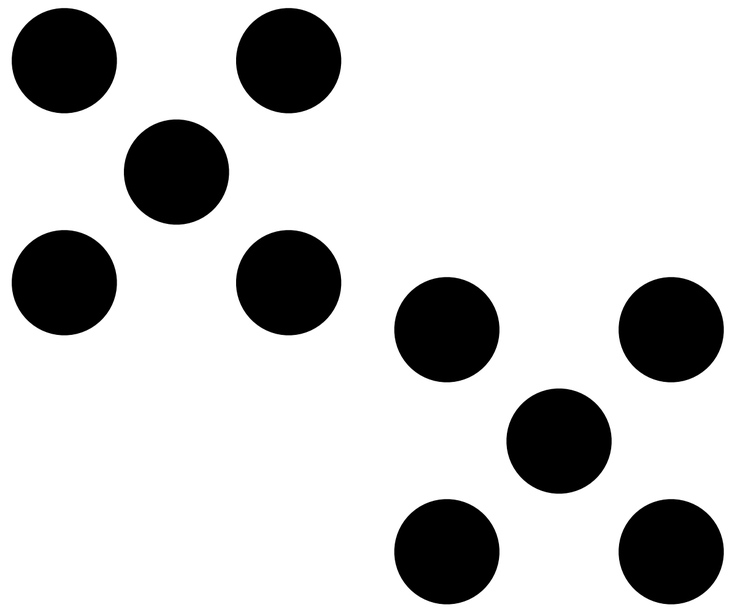

Set #1

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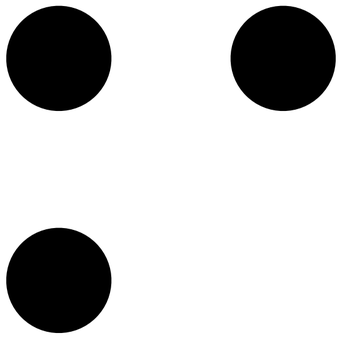
DOT CARDS

SUBITIZING SET #2

Set #2

Set #2

Set #2



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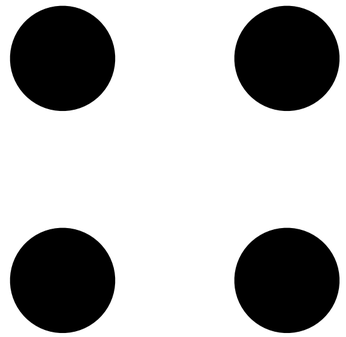

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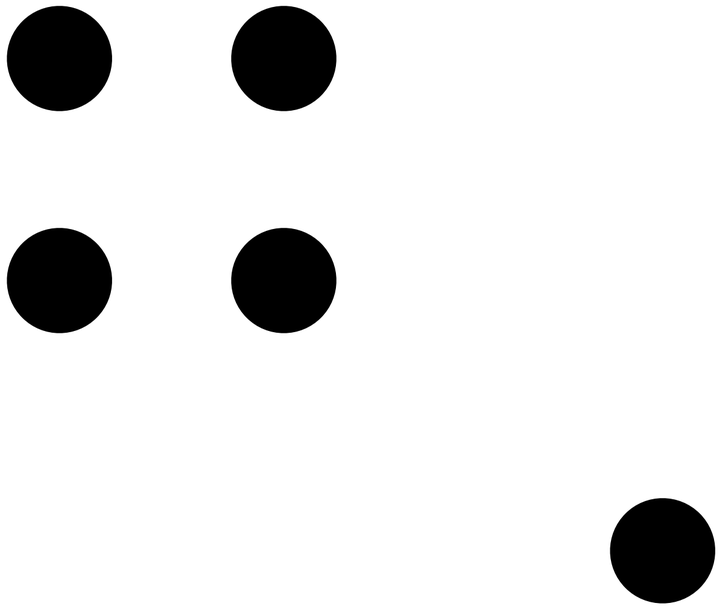

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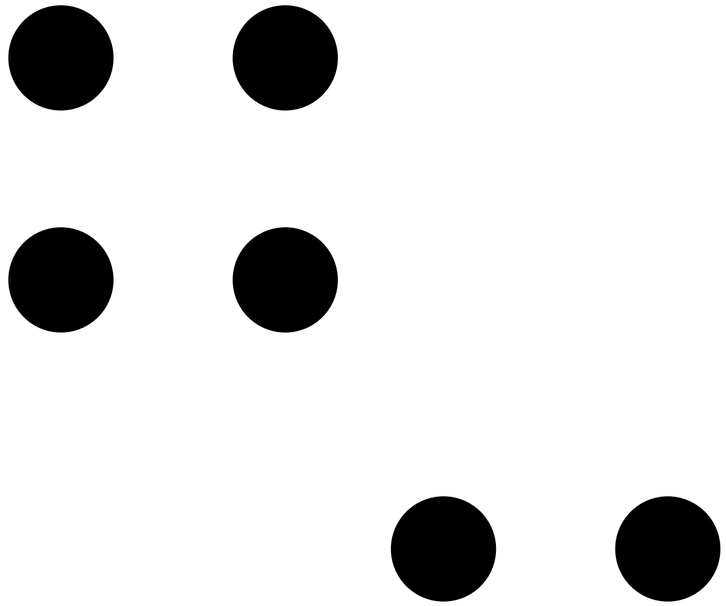

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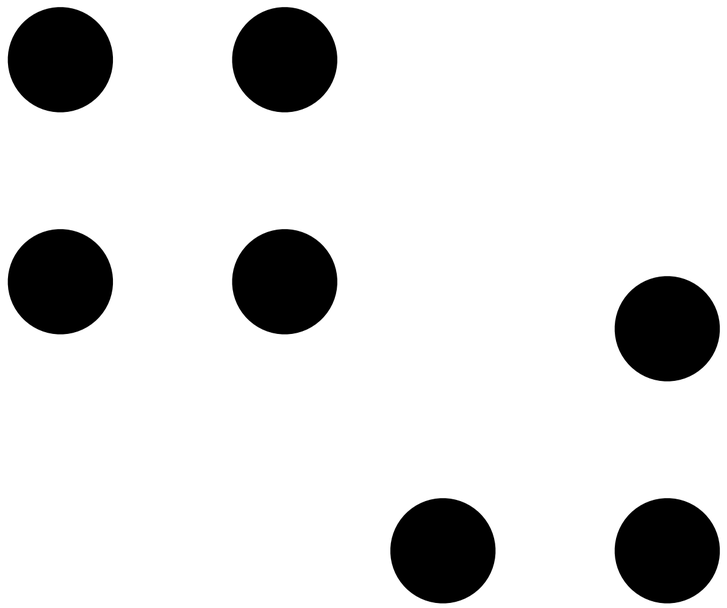

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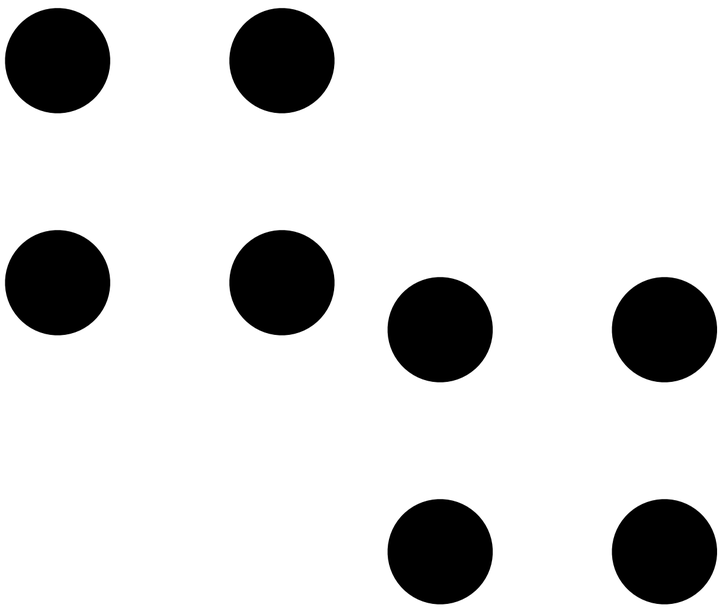

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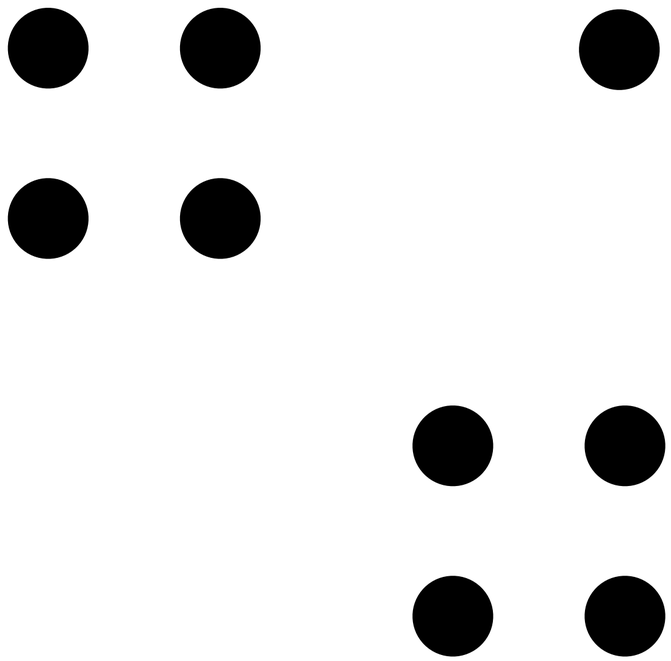

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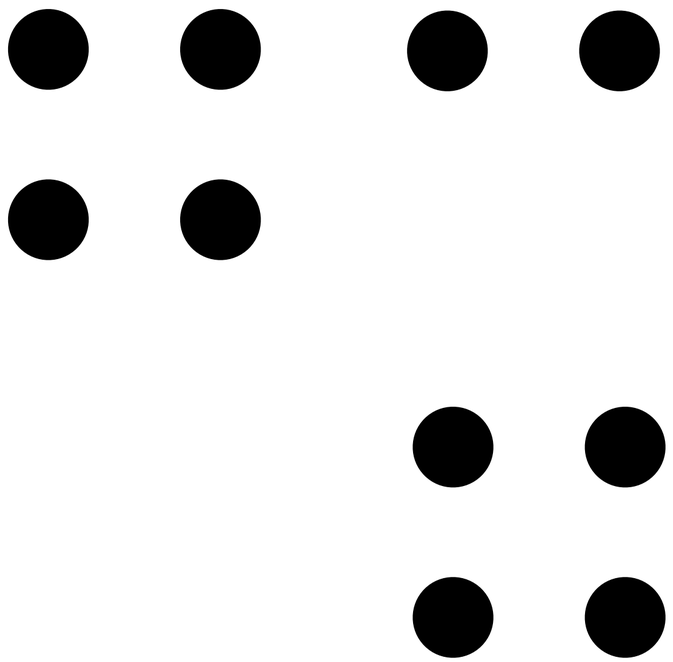

Set #2

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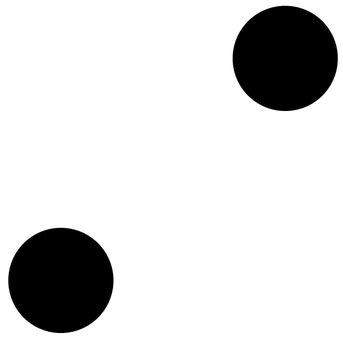
DOT CARDS

SUBITIZING SET #3

Set #3



Set #3

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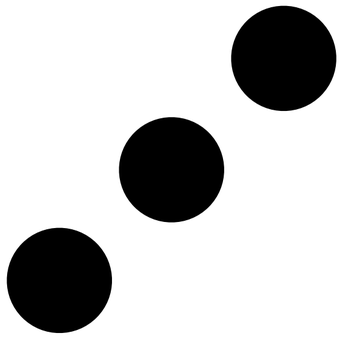

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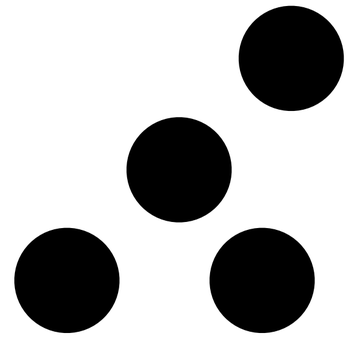

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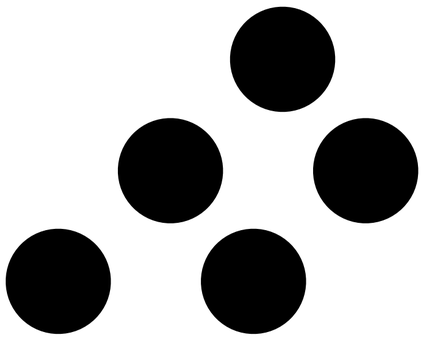

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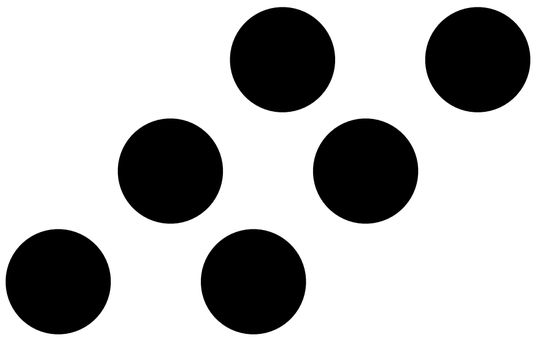

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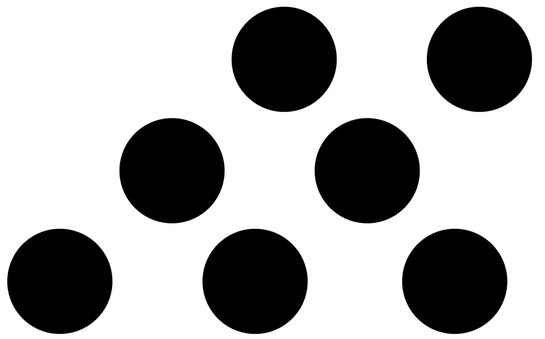

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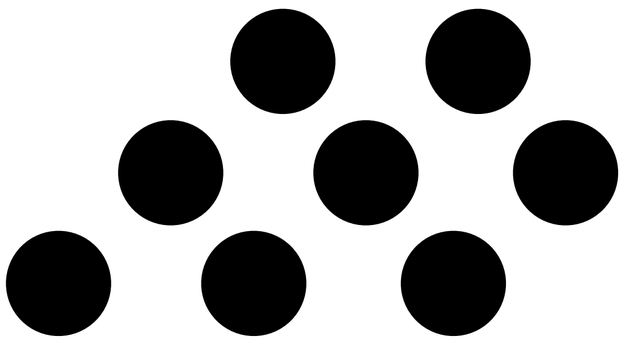

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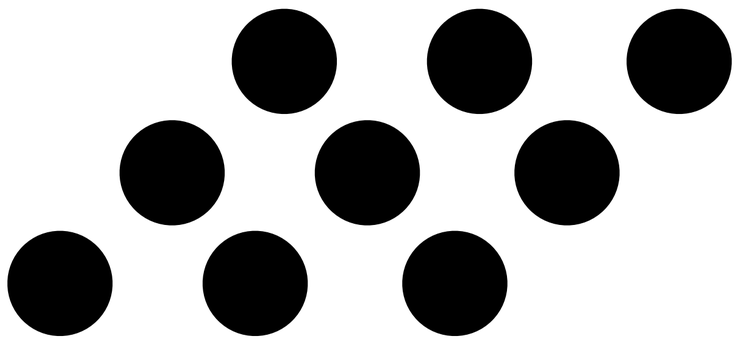

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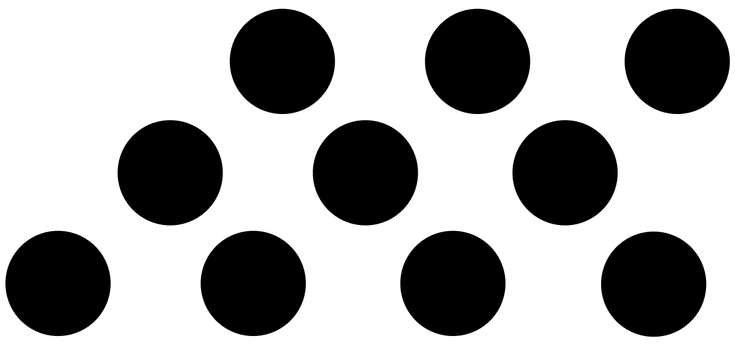

Set #3

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DOT CARDS

SUBITIZING SET #4

Set #4

Set #4

Set #4

Set #4

PRACTICE WITH THESE DOT CARDS AT HOME

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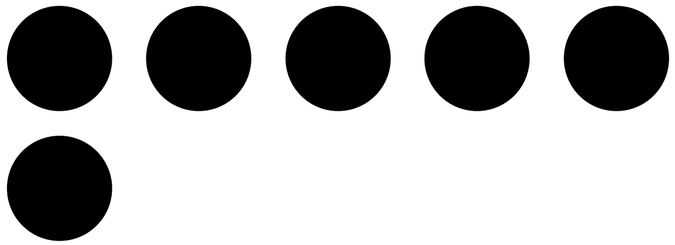
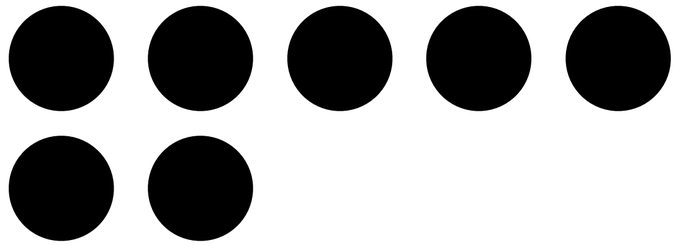
Set #4



Set #4



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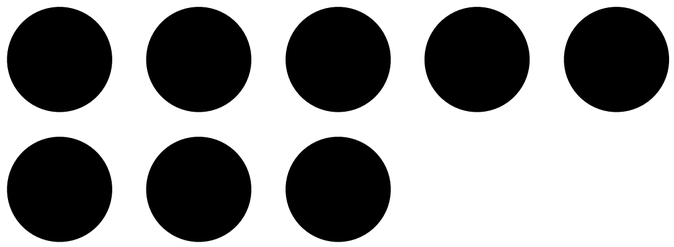

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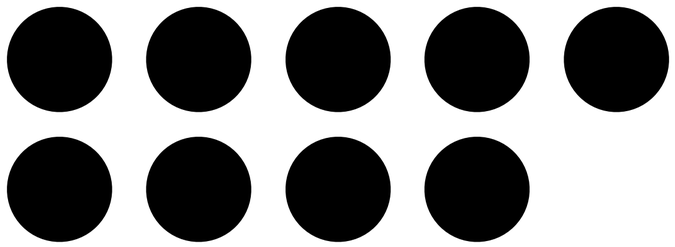

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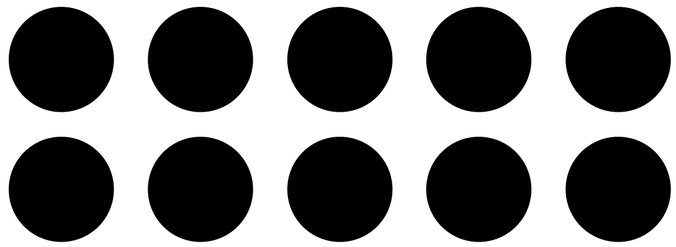

Set #4

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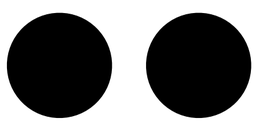
DOT CARDS

SUBITIZING SET #5

Set #5



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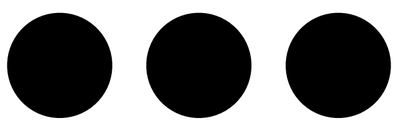

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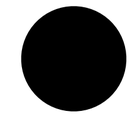

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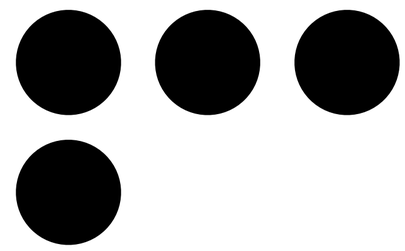

Set #5

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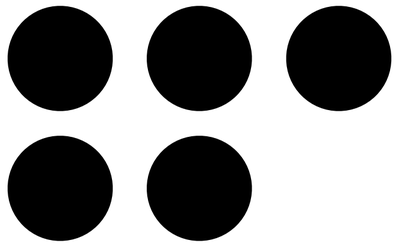

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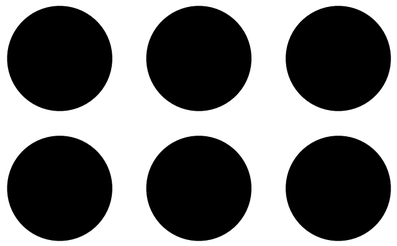

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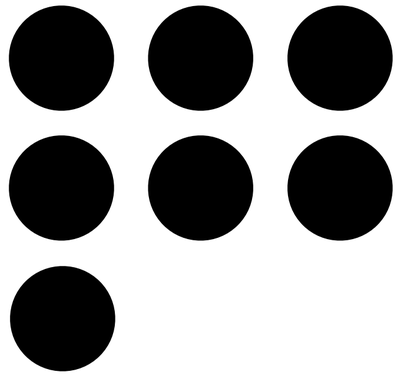

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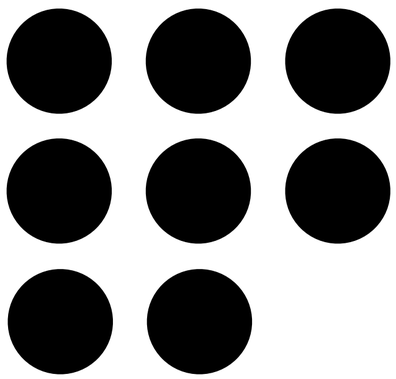

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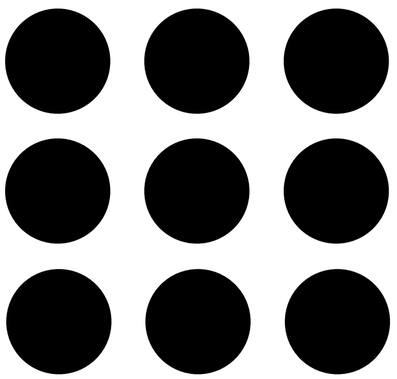

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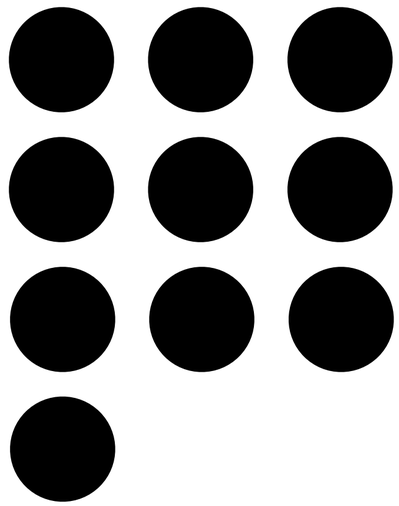

Set #5

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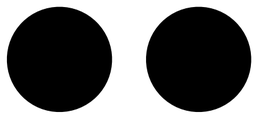
DOT CARDS

SUBITIZING SET #6

Set #6

Set #6



Set #6

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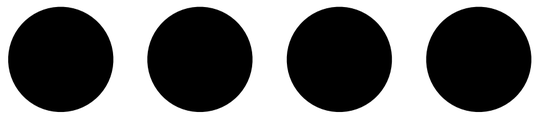

Set #6

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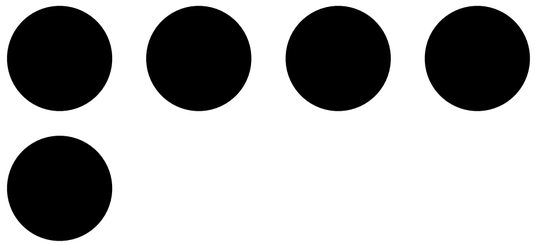
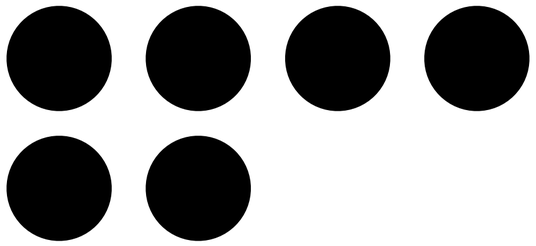


Set #6



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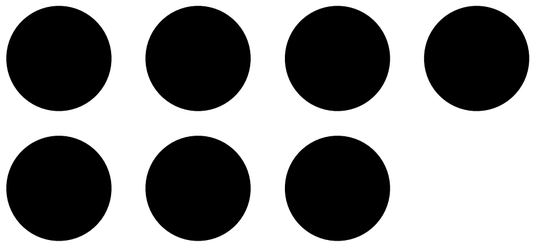
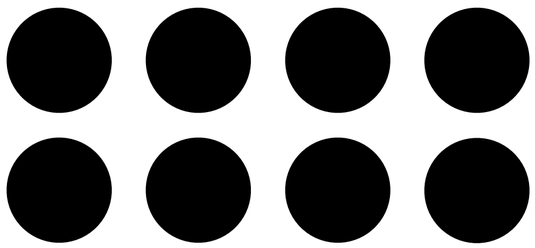


Set #6



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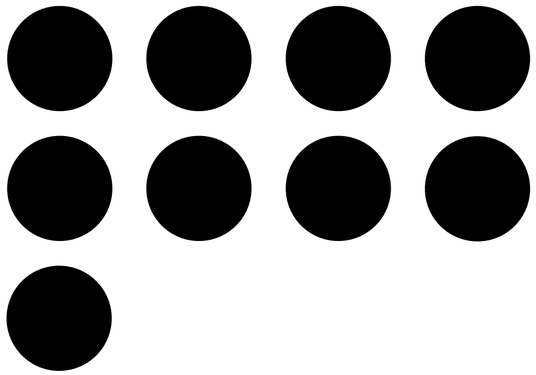

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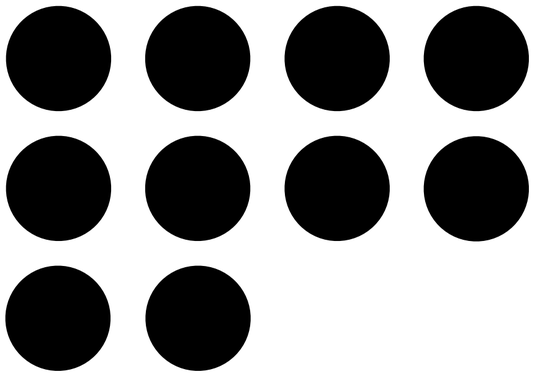

Set #6