Notes to Nerds

February 5th, 2021

Upcoming Workshops

February 9th (3:45pm-4:30pm) Aiming for Deeper Understanding - apply measurement conversion, area/perimeter and volume standards using numberless word problems. (4th - 5th grade) Register Here

February 9th (4:45pm until 5:30pm) Leveraging Concepts in Unit 6: Statistics (6th Grade) Register Here

February 10th (4:15pm until 5pm) Leverage the Standards High School Geometry Workshop Series Register Here

February 11th (4:15pm until 5pm) Leverage the Standards High School Algebra 1 Workshop Series Register Here

February 16th (3:45pm-4:30pm) Aiming for Deeper Understanding - Addition and subtraction skills using numberless word problems. (2nd - 3rd grade) Register Here

February 16th (4:15pm until 5pm) Leveraging Concepts in Unit 5: Inferences (7th Grade) Register Here

Note to Nerds
Humbled by Everyday Heroes

We have all had to make adjustments in our lives because of the pandemic and there seems to, **thankfully,** be a turn toward things getting better.
I have set down several times this past week to write this Note to Nerds. Interestingly, a couple of times that I started, I received messages from teachers. They speak for themselves (and have been edited for anonymity.)

One teacher shared, *"…. my after-school schedule took a major hit recently and won't go back to normal until March. Unfortunately, my co-worker's family has been ravaged by COVID and I've had to step in as a coach. As a result, I have to run practices, study halls, etc., and still make it to my own children's practices/games."*

In an elementary school virtual workshop session almost a third of the teachers attending were diagnosed positive with Covid 19 or quarantining because of the virus and yet they still showed up, committed to becoming better teachers for their students.

Another teacher revealed, "*... hanging in there. 5 face-to-face, two virtual, and now three virtual academic repair classes. I feel like a hot mess most days! Trying to adapt. A coworker recently returned, ... was VERY sick with Covid. I was doing google meets with their f -to-f classes to keep them going. The technology allows for so much, but the kids are doing - who knows what behind that screen?"*

In another virtual session late in the week, a teacher remarked that her school had been face-to-face but that after about 2 weeks the numbers of students and teachers that were affected by the virus was such that the school had to transition to completely virtual.

It is important to recognize that the virus is still present and affecting the teachers who work with our students everyday face-to-face, and through the ether virtually. I see them as everyday heroes who give from their very hearts.
These are just a small slice of what the teacher-heroes are **currently** experiencing. It is important to know and to appreciate…. That's all.

Happy Maths,
Peter

More News and Cool Puzzles Follow

Noted at the Collaborative

We have a Parent Resource Page Parent's Corner that has been getting great reviews! It is wonderful information for Parents and TEACHERS too!

We already have teams signing up for our Math Masters Event scheduled for March 6th! (*We would love to welcome even more Middle School Teams and maybe some Master Teachers too.)* Contact Peter or Nancy!

Watch out Monday here we come! We will visit Tonya Herring's nursing students to work on dosing calculations. Thanks Health Professions!

Hey COEHP! - The Math Collaborative has a whole slate of workshops on Tuesdays, Wednesdays, and Thursdays that your students are welcome to attend (FOR FREE!) This will allow them PD, and professional networking with current educators. Registration Link.

Zukei Puzzles – Shared by Laura Stokes

"All squares are rectangles, but not all rectangles are squares." To truly understand this statement, you need to know the attributes of a square AND a rectangle. Helping students explore and identify attributes, and then apply that understanding to give a figure its most specific name is the foundation of their study of geometry. Zukei puzzles do just that! These puzzles are the brainchild of Japanese puzzle master, Naoki Inaba.

How to solve these puzzles:

This sophisticated "connect-the-dots" puzzle is made up of several dots on a grid. To solve the puzzle, you want to connect some of the dots to form the named shape. The one rule is that the dots must lie on the shape's vertices.

As I was working through these puzzles, some of the shapes literally jumped off the page at me. Others – not so much! I had to resort to what I knew about the attributes of a shape. Shapes with right angles had me looking for three dots in the shape of an "L," and parallel lines needed two pairs of dots that were equidistant from each other. It was fun to think about how I could apply my understanding of the attributes to the dots and then "see" the named shape. Here's another hint: Try turning the paper and changing the orientation! Amazing how much that helps, too!

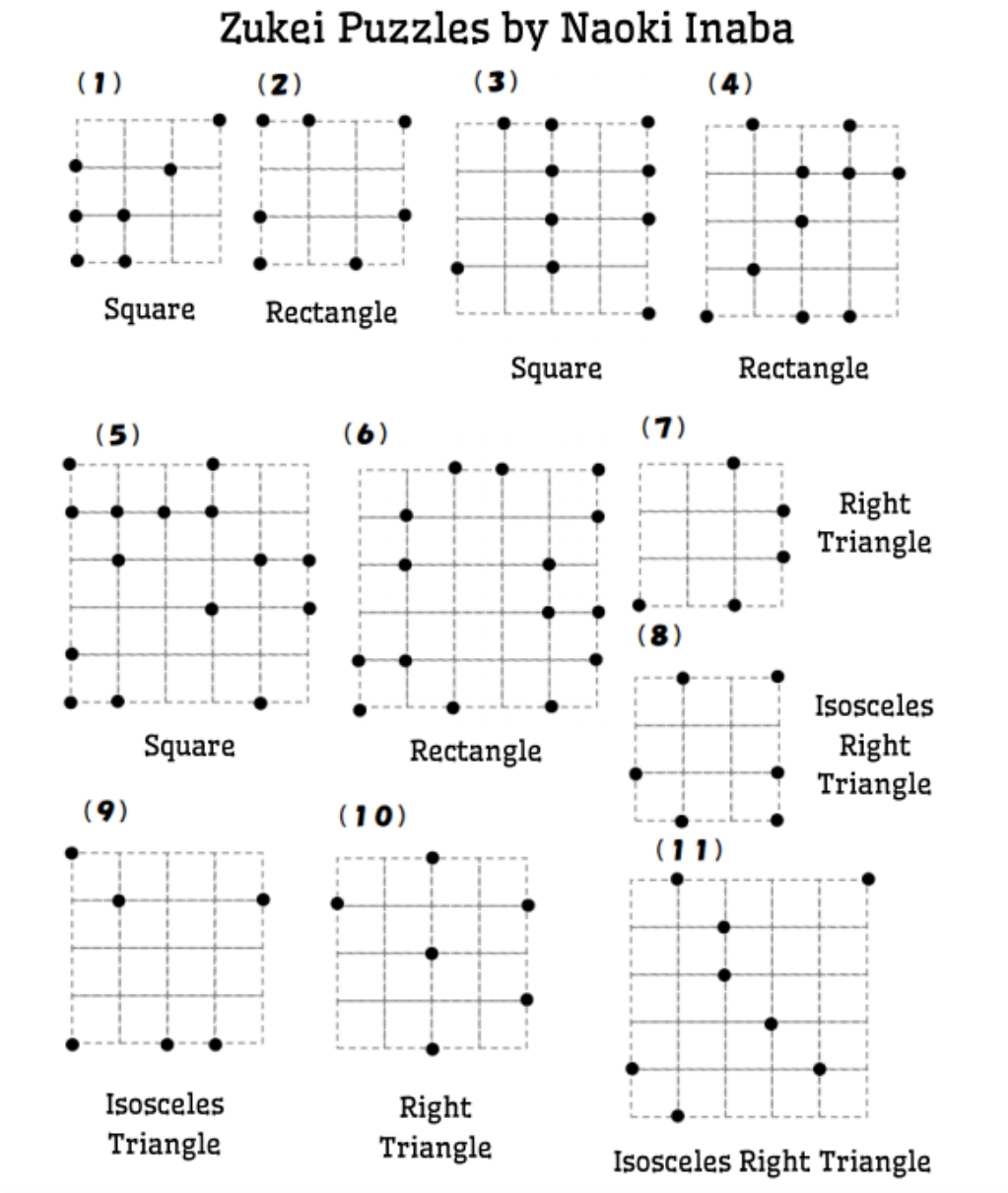
I hope you have as much fun looking at and solving these as I did.

(Again, these puzzles are created by Naoki Inaba. The problem for many of us is that we don't read Japanese. Thank you to Sarah Carter. She used google translator to determine the shape clue for each puzzle.)

To learn more about, and find additional puzzles to solve, go to:

- Sarah Carter's "M + A + T + H = love" blog: 6 Sources of Free Zukei Puzzles for Practicing Geometric Vocabulary: https://mathequalslove.net/zukei-puzzles/
- Mark Chubb's "Thinking Mathematically" Zukei Puzzles post: https://buildingmathematicians.wordpress.com/2018/03/08/zukei-puzzles/
- Check out this desmos activity with the puzzles: https://teacher.desmos.com/activitybuilder/custom/585b4540f24bc103154b8f3a

Enjoy!



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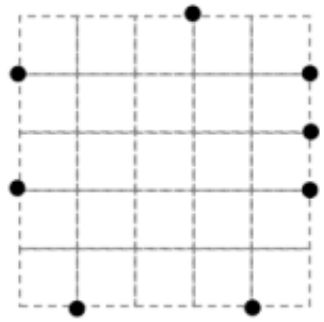
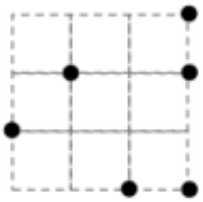


Isosceles Triangle

(13)



Trapezoid

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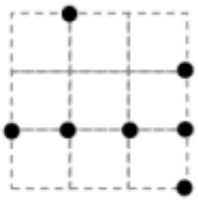
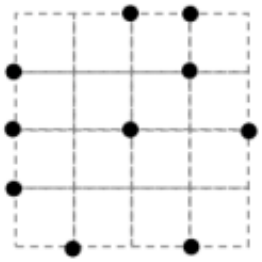


Parallelogram

(15)



Rhombus

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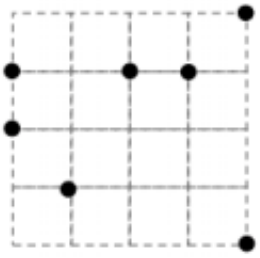

Trapezoid

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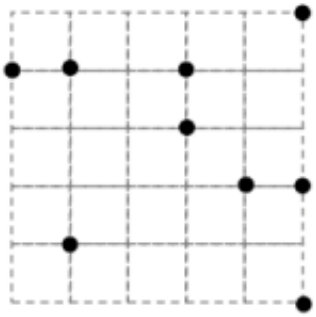

Parallelogram

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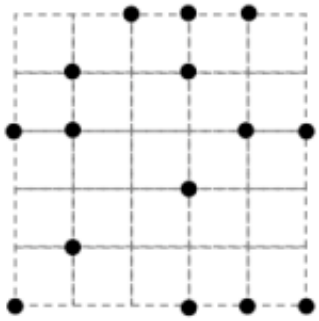

Rhombus

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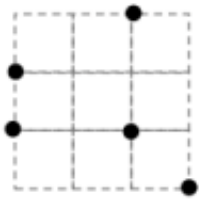
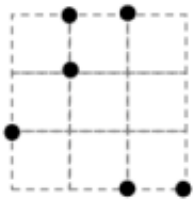


Right Triangle

(20)



Parallelogram

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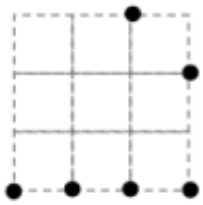
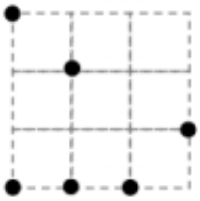


Isosceles Right Triangle

(22)



Trapezoid

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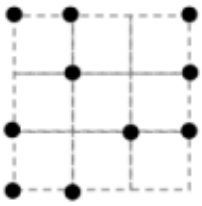
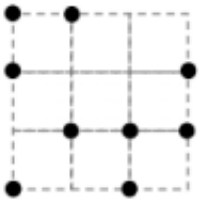


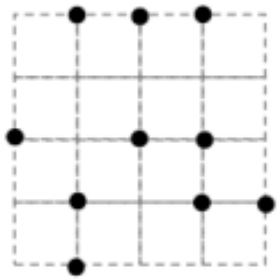
Square

(24)



Rectangle

(25)



Rhombus

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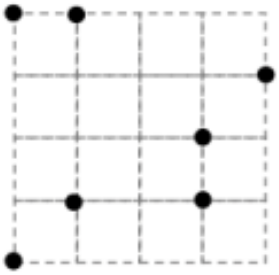
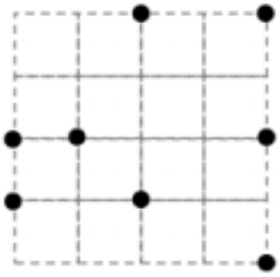


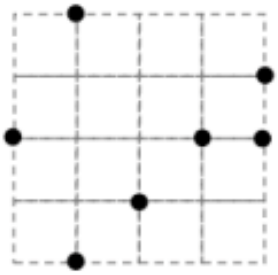
Isosceles Triangle

(27)



Parallelogram

(28)



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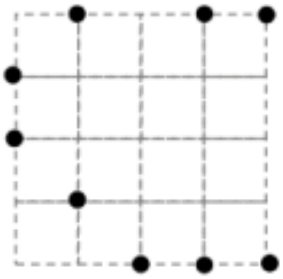
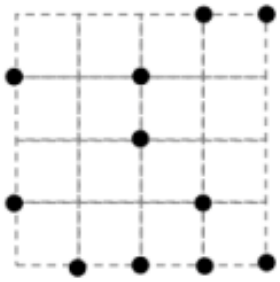


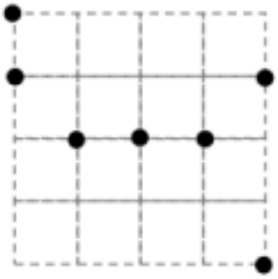
Isosceles Right Triangle

(30)



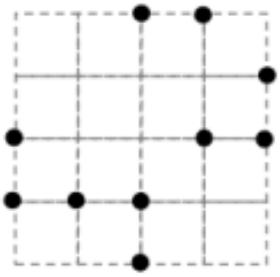
Rectangle

(31)



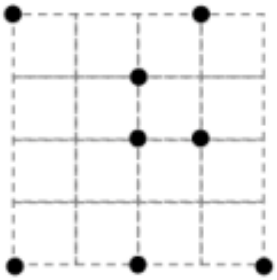
Isosceles Triangle

(32)



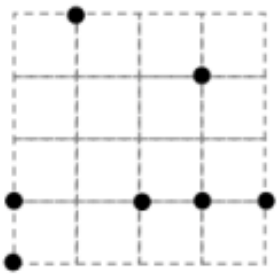
Square

(33)



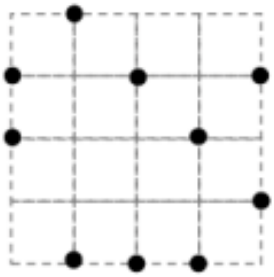
Parallelogram

(34)



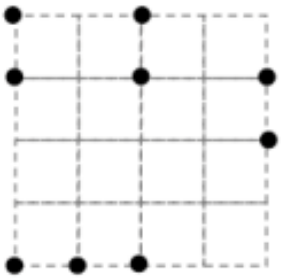
Trapezoid

(35)



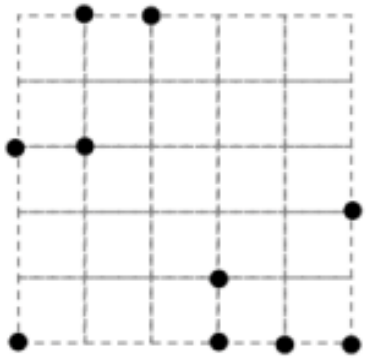
Rectangle

(36)



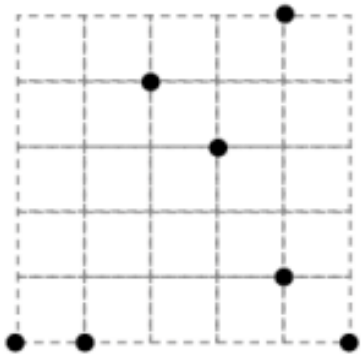
Isosceles Right Triangle

(37)



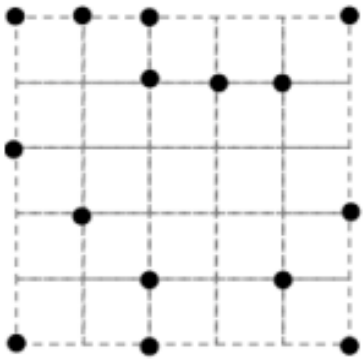
Rectangle

(38)



Right Triangle

(39)



Square

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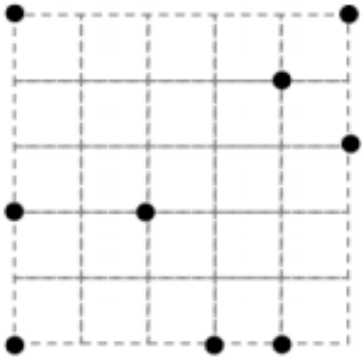
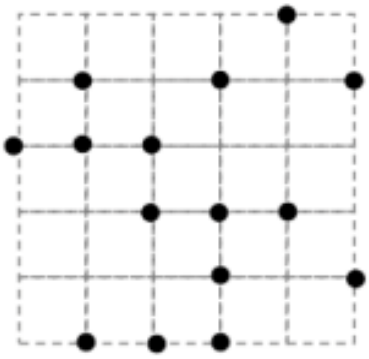


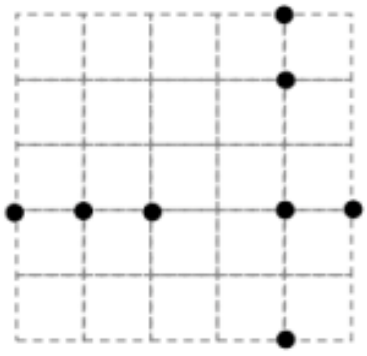
Parallelogram

(41)



Rhombus

(42)



Trapezoid