

# Checkerboards and More

Adapted from youcubed WIM Task

<https://www.youcubed.org/wim/checkerboards-more-3-5/>



Slide-deck created and shared  
by Lori Fury

# Mindset Video

Please watch this video: <https://www.youcubed.org/wim/strategies-for-learning-mathematics/>

# Investigate the Hundred Chart

First, think individually. Then share with a partner or the whole class.

What do you notice?

I see....

What do you wonder?

I wonder...

What patterns do you see?

My pattern starts with...and it...

What do these patterns make you wonder?

I wonder if the pattern.....

# Hundred Chart

I see....

I wonder...

My pattern starts with...and it...

I wonder if the pattern will.....

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

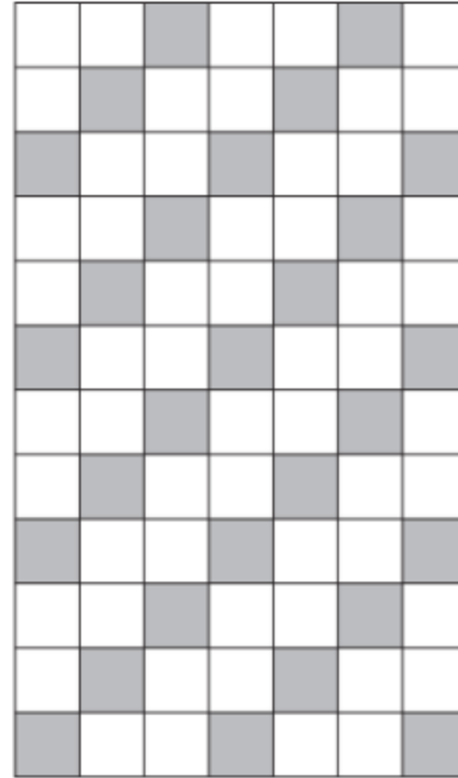
# What pattern is this?

I see....

I wonder...

The pattern starts with...and it...

I wonder if the pattern will.....



# What pattern is this if the grid is counting by 2's?

I see....

I wonder...

The pattern starts with...and it...

I wonder if the pattern will.....

2	4	6	8	10	12	14
16	18	20	22	24	26	28
30	32	34	36	38	40	42
44	46	48	50	52	54	56
58	60	62	64	66	68	70
72	74	76	78	80	82	84
86	88	90	92	94	96	98
100	102	104	106	108	110	112
114	116	118	120	122	124	126
128	130	132	134	136	138	140
142	144	146	148	150	152	154
156	158	160	162	164	166	168

# Make some checkerboard patterns of your own:

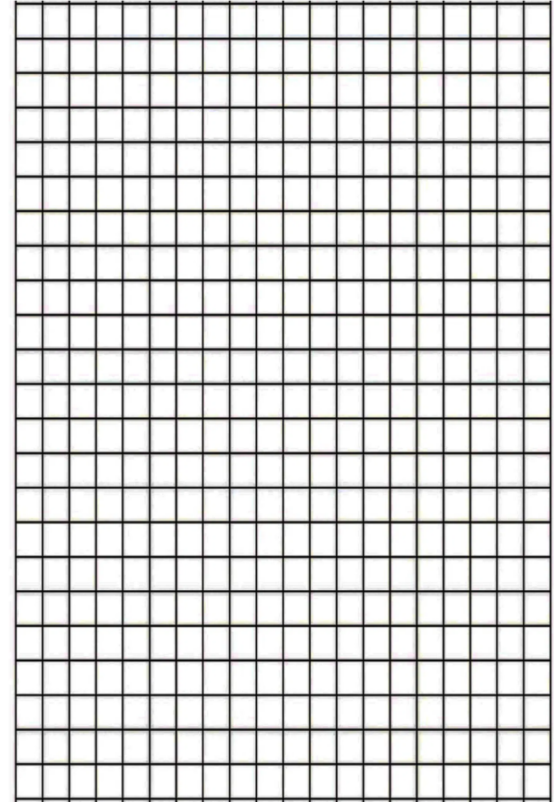
Explore what numbers make vertical and diagonal lines on different sized grids.

Explore what sized grids and numbers make vertical and diagonal lines on your checkerboards.

Explore what grid sizes and numbers can make checkerboard patterns.

What other patterns can you create?

Record your findings with color, words, symbols, and numbers.



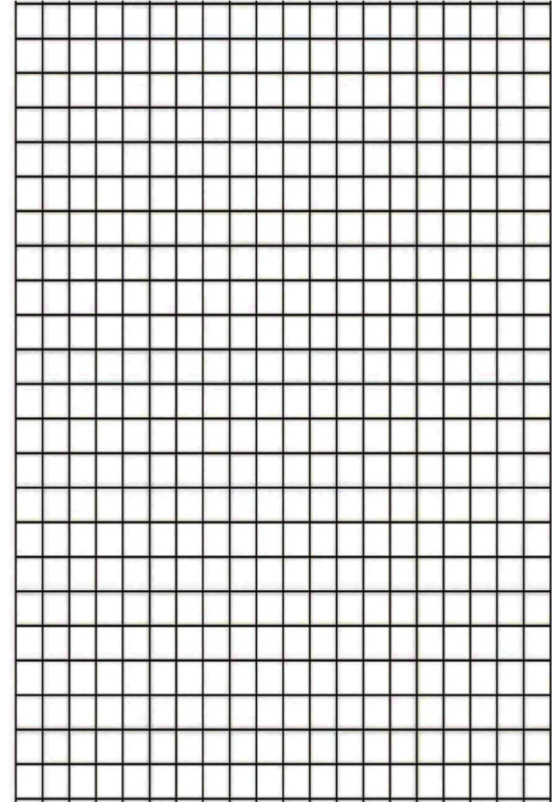
# Collect and Display: What have we found?

What numbers others have used to make vertical and diagonal lines on different sized grids?

What sized grids and numbers make vertical and diagonal lines on your checkerboards?

What grid sizes and numbers can make checkerboard patterns?

What other patterns did you create?





# Extensions

- What designs can you make if you count by one number and then a different number on the same grid?

What if you use a third number?

What if you use different colors?

What if you use the same color?

# Debrief

With the whole class, ask how you were able to practice the “strategies for learning math” from the video we watched.

What did students like about this activity?

What parts were challenging?

How did they grow their brain during this activity?

