

Warm Up to Number Sense and Reasoning

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@MrLewis_Math

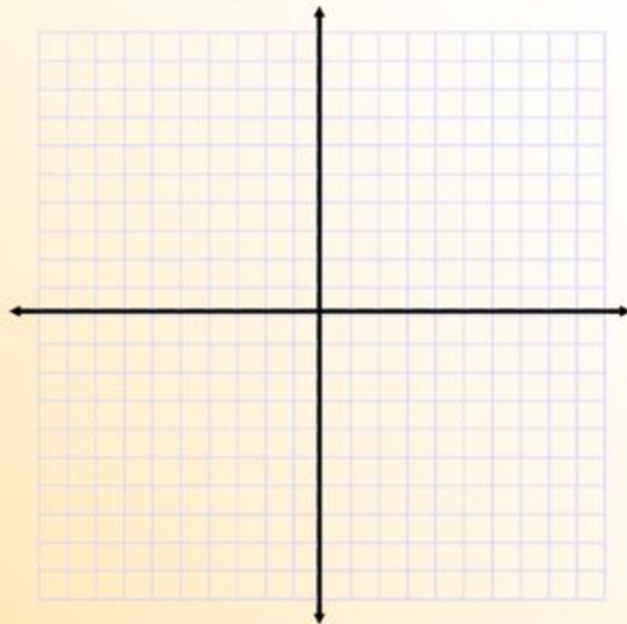
WODB Estimation 180 SolveMe Mobiles Would You Rather...? Visual Patterns and MORE
All in 5 minutes or less!

Warm Up

Graph the equations on the same coordinate system.

$$y = 3x - 2$$

$$y = -\frac{1}{3}x + 4$$



What are your goals for the first few minutes of class?

What makes a good warmup?

- Which One Doesn't Belong?
- Estimation180
- SolveMe Mobiles
- Would You Rather...?
- Visual Patterns
- Win a Prize
- Open Middle
- Mystery Grid/Who Am I?



Which One Doesn't Belong?

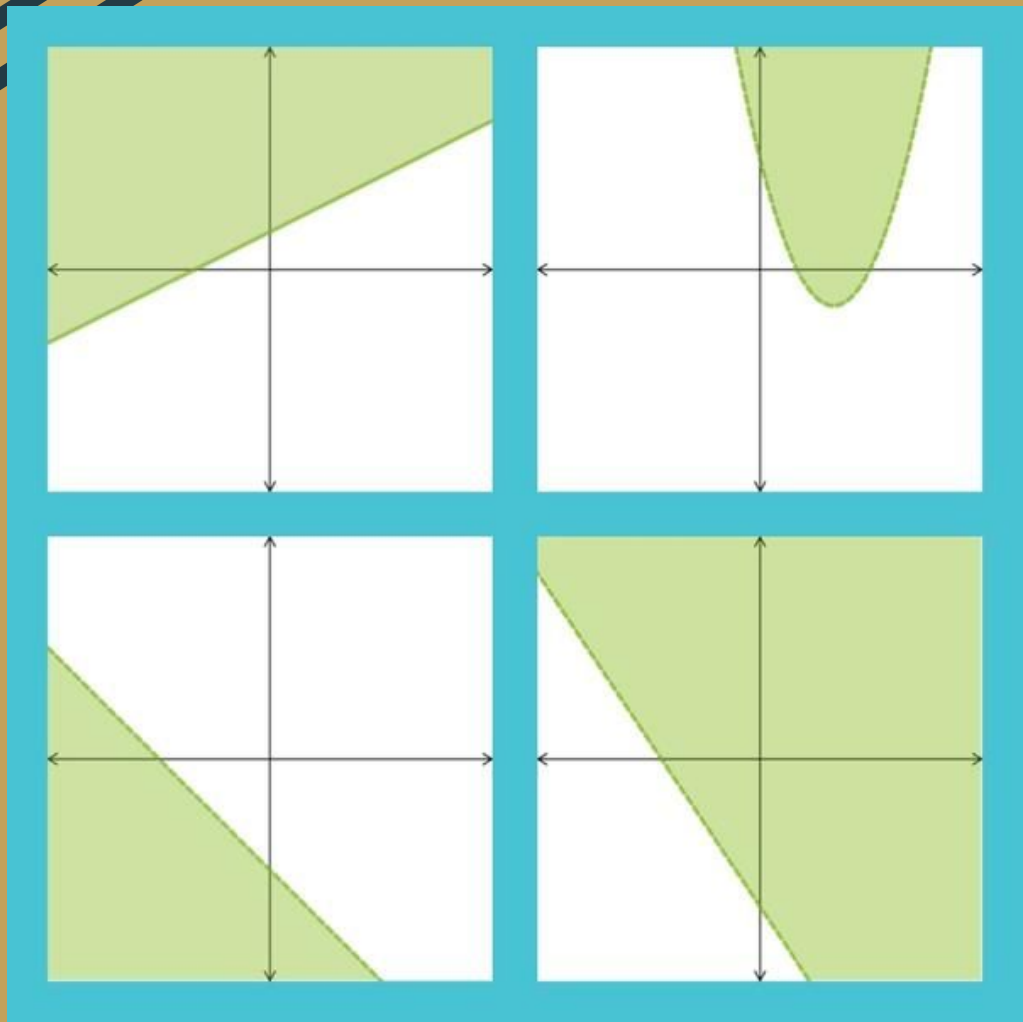
Wodb.ca

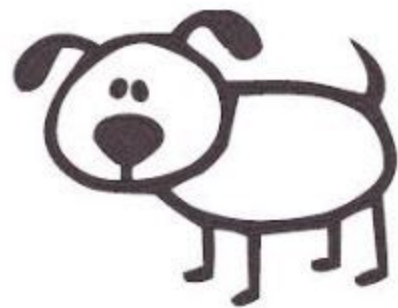
Mary Bourassa

@WODBmath

@MaryBourassa







Which One Doesn't Belong?

- On the board when they walk in
- Only take one, unique/creative answer for each option (if appropriate)
- When in doubt, choose an easier set
- Only give a few minutes to think, and stick to it
- Be okay with stopping



Estimation180

Estimation180.com

Andrew Stadel

@estimation_180

@mr_stadel



How many **cheeseballs**
will fit in the *tray*?



ESTIMATION180.com

Day 206

[Answer](#)

How many **cheeseballs**
will fit on the *large* plate?



Day 207

How many **cheeseballs**
come in the *container*?



Day 209

How many **cheeseballs**
will fit on the *small* plate?



Day 208

How many **cheeseballs**
will fit in the *bowl*?



Day 210

ESTIMATION



Building number sense one day at a time.

Name _____

Challenge	Too LOW	Too HIGH	My Estimate	My Reasoning	The Answer	Error

Estimation180

- On the board when they walk in
- Give them a time limit on work
- Take some responses - don't take them all
- It's okay if students miss it



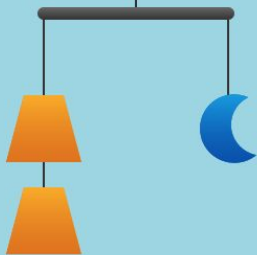
SolveMe Mobiles

solve.me.edc.org/mobiles

@EDCtweets

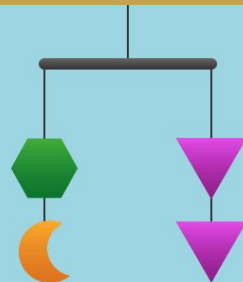


8



 = 2

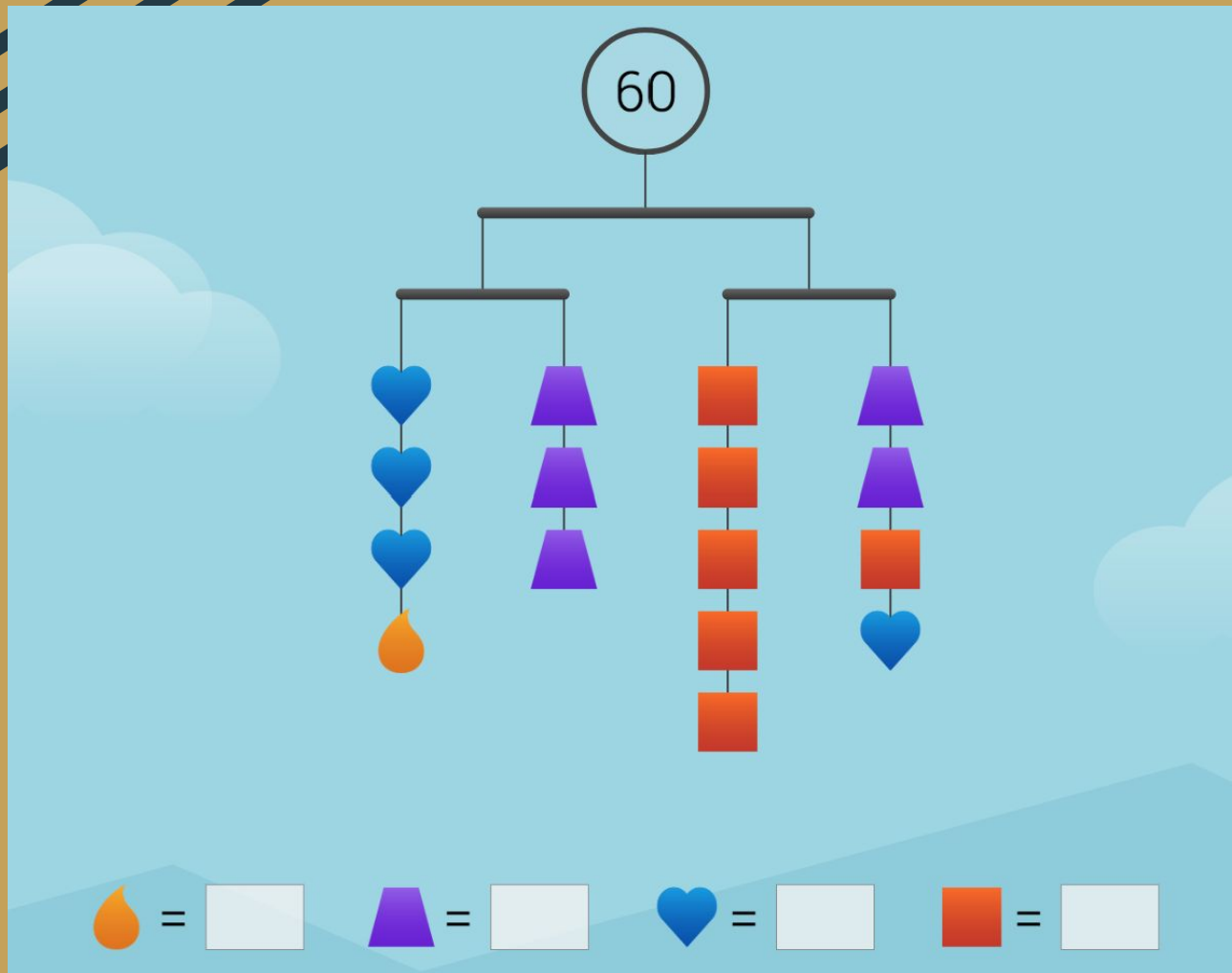
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 = 4

 = 3

 =



Puzzle 123

SolveMe Mobiles

- On the board when they walk in
- Give them a time limit on work
- Wait until some/most have it
- Don't be afraid to solve it later/tomorrow (if it proved to be tough)

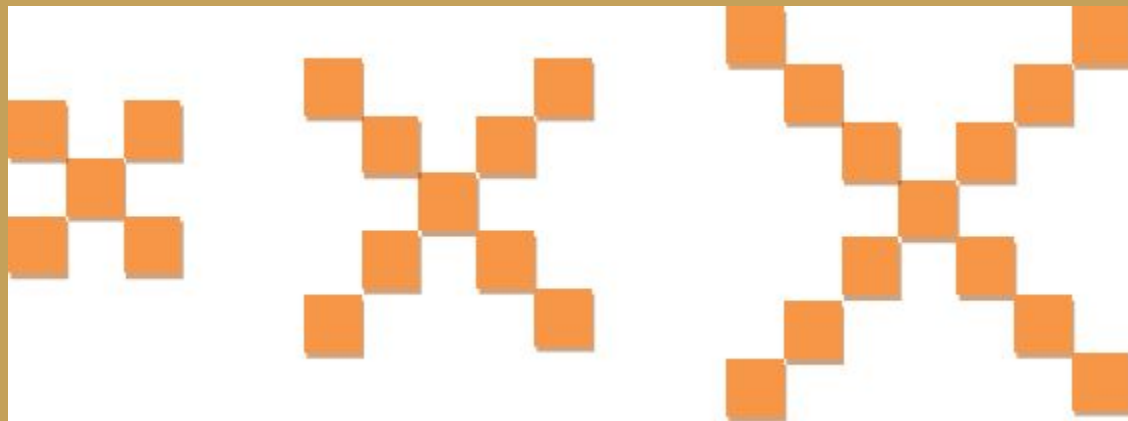
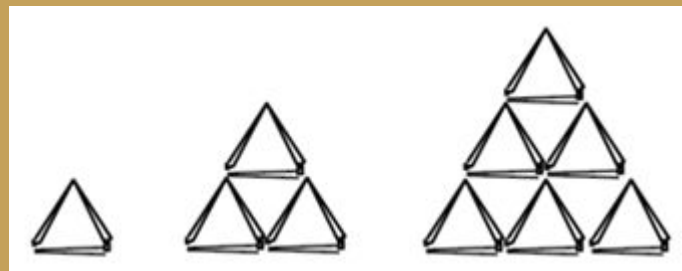
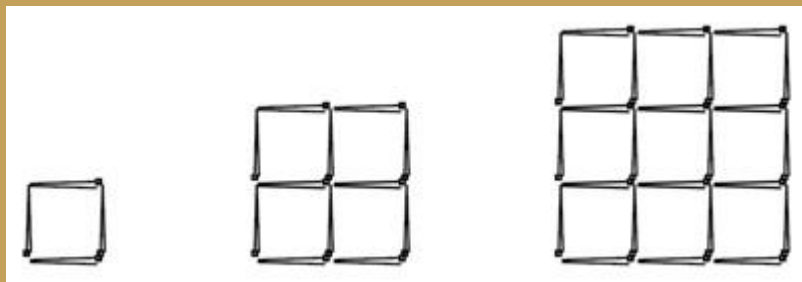


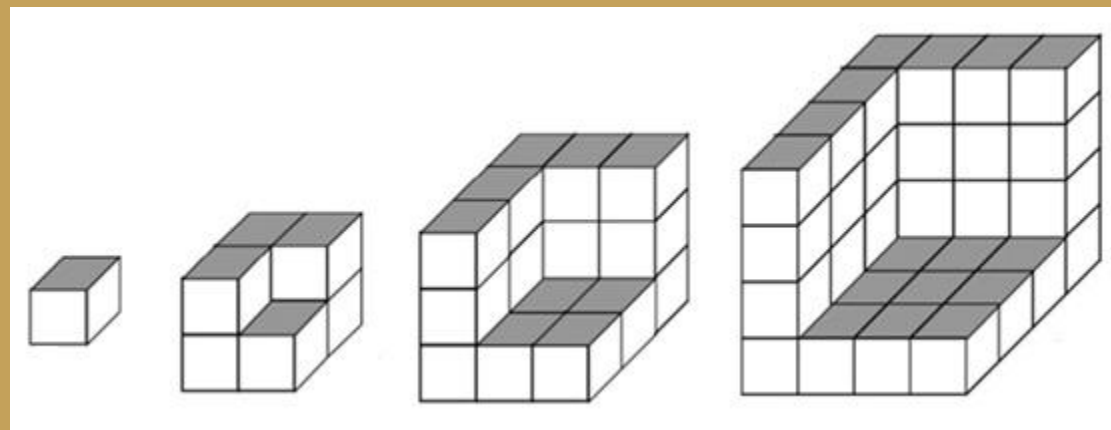
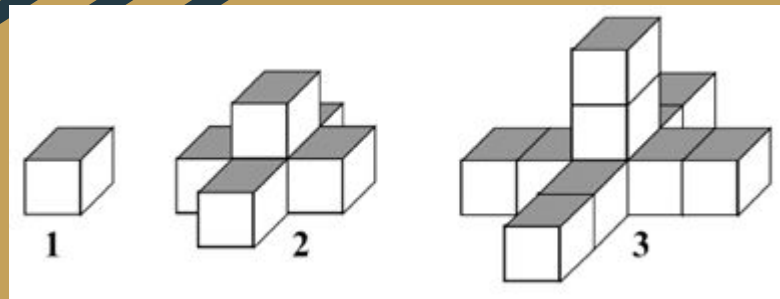
Visual Patterns

visualpatterns.org

Fawn Nguyen @fawnpnguyen







Visual Patterns

- On the board when they walk in
- Only show step 1, ask to draw step 2, etc.
- Show all 3, ask for the number in step 10
- Ask for the number in step n
- Show steps $2 + 3$, ask for 1. Show steps $1 + 3$, ask for 2



Win a Prize

Estimate this in your head.

No pencil/paper or calculator.

$$98 \div 53$$

Estimate this in your head.

No pencil/paper or calculator.

34% of 90

Win a Prize

- On the board when they walk in
- Give a time limit
- Make it accessible
- Have them write it down
- Give a prize!



Would You Rather...?

Wouldyourrathermath.com

John Stevens

#wyrmath

@Jstevens009



Would You Rather...

Have the revenue from an amusement park Ferris wheel *or* carousel ride?



4 tickets to ride



3 tickets to ride

Go on a 5 minute shopping spree in the
department store of your choice

OR

Receive a \$2,000 gift card to the department
store of your choice?



h/t @HRSBMathematics

Photo credit: Caden Crawford via Flickr CC BY-ND 2.0

Would You Rather...?

- On the board when they walk in
- Not much wait, students will think while others talk
- Choose ones that are easier
- Take a few responses
- If all responses are similar, ask for an alternate answer
- End it with your personal choice



Open Middle

Openmiddle.com

@openmiddle



ADDING DECIMALS TO MAKE THEM AS CLOSE TO ONE AS POSSIBLE

Directions: Use the numbers 1 through 9, exactly one time each, to fill in the boxes and make three decimals whose sum is as close to 1 as possible.

0.

0.

+ 0.

ADDING MIXED NUMBERS 3

Directions: Use the digits 1-9 each once to make a the largest possible sum.

$$\begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} = \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array}$$

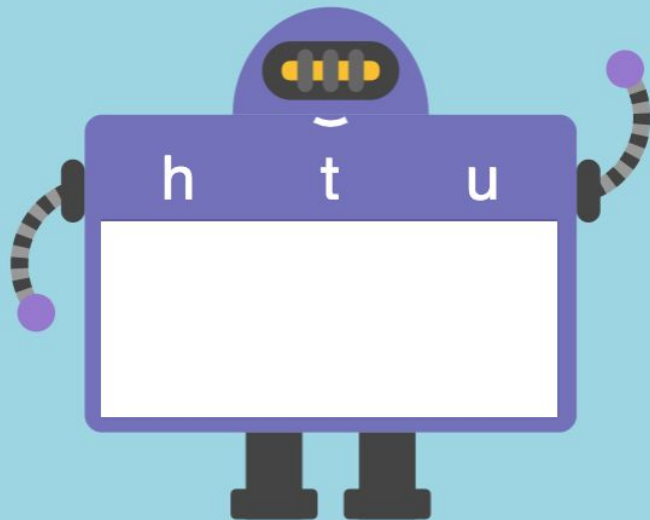


Who Am I?/Mystery Grid

Solveme.edc.org

@EDCtweets



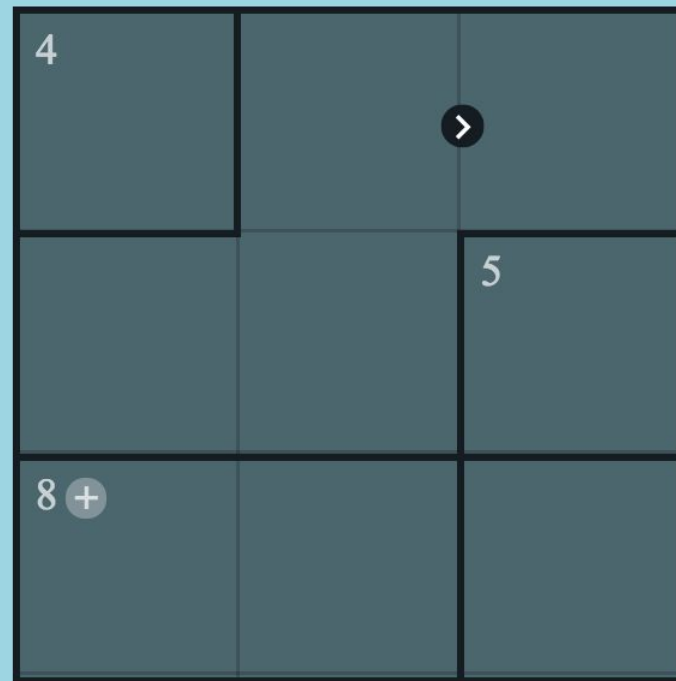
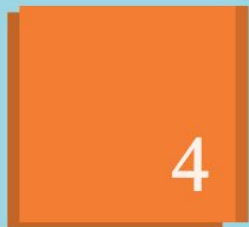


CLUES

The sum of my digits is equal to six.

My hundreds digit is equal to two more than my tens digit.

My units digit is equal to one more than my tens digit.



Tips for Successful, Efficient Warm Ups

- Have it on the board when students walk in
- Make it accessible
- It's okay if not every kid does it; don't let them waste your time
- It's okay if someone misses it or doesn't finish it
- Try to choose something that every kid can try
- Make it engaging

Warm Up to Number Sense and Reasoning

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bit.ly/NCTMLewisSurvey

bit.ly/GlenLewisSurvey