

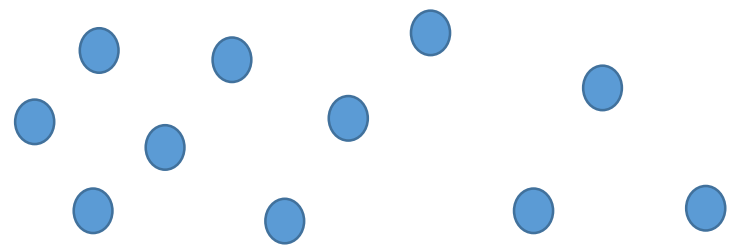
Can we make fluency activities more connected to the lessons?

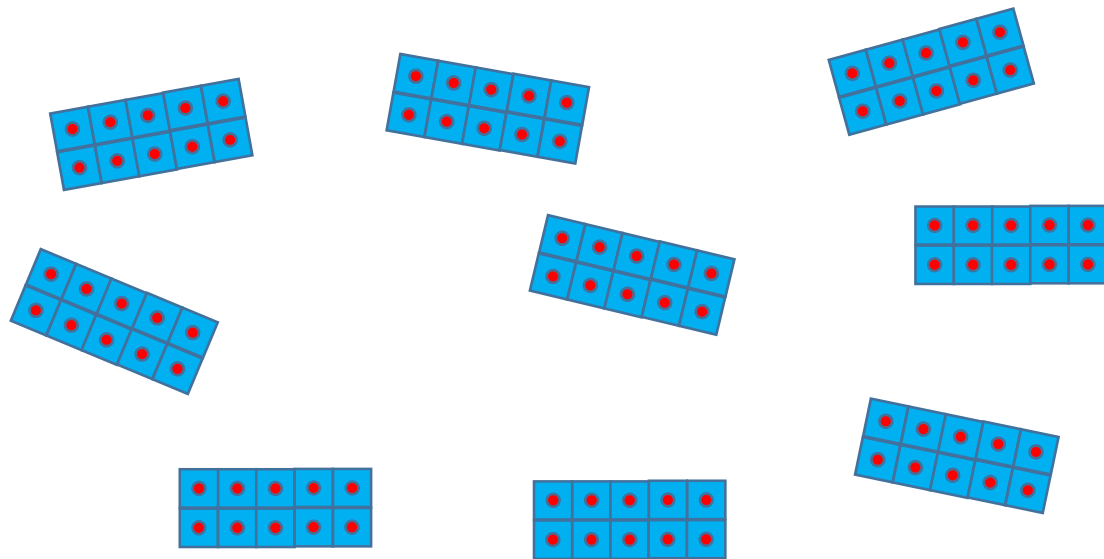
# Directions

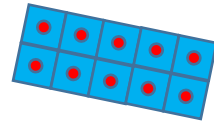
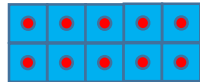
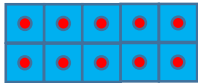
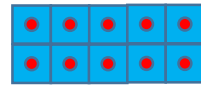
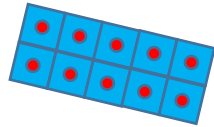
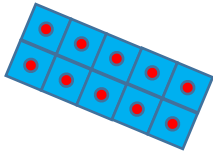
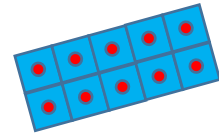
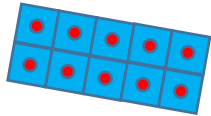
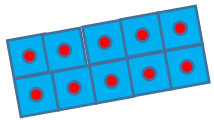
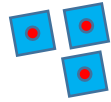
- In small groups, students stand in a circle and count up from 1
- Each student uses their hand to indicate direction of who counts next (to the left or to the right)
- This can be used for counting up to 11 (or further if they are ready) or back from 11 to 0

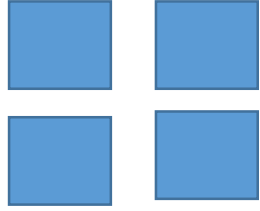
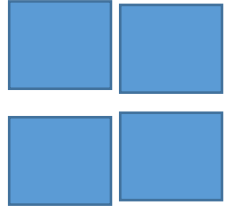
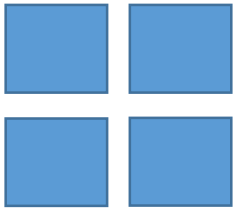
# Clap counting

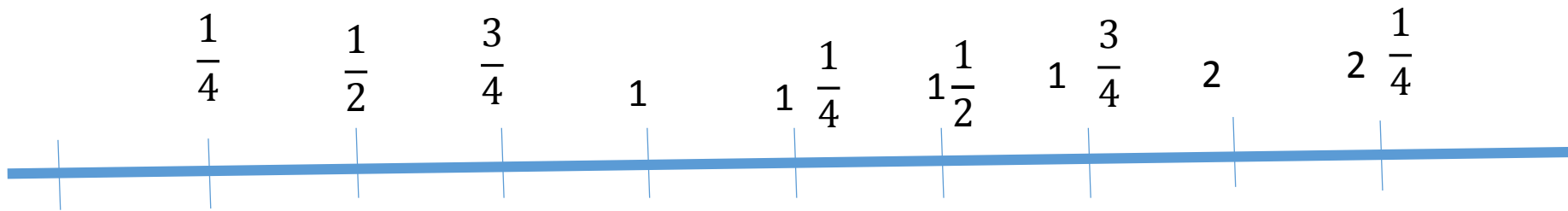
- The teacher claps while saying the number sequence, but stops saying the numbers after 3 (say) and keeps clapping. The students count in their heads and say the finishing number together.
- This can be up from 0 towards 11 (or further) or back from 11 towards 0



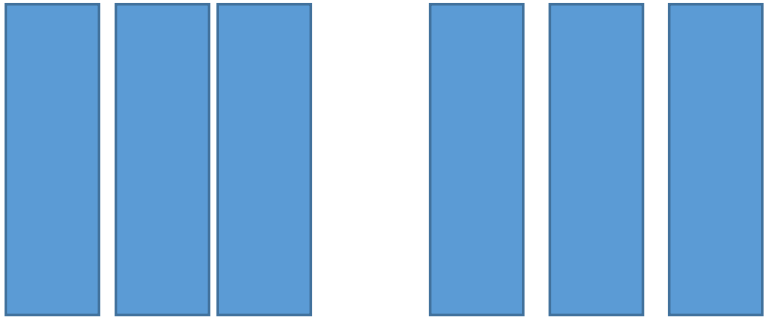


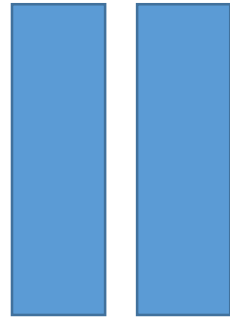
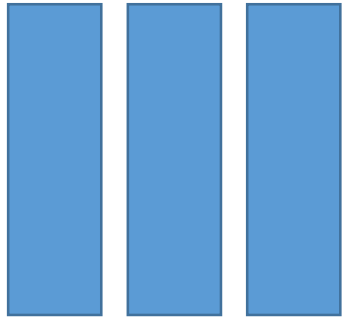
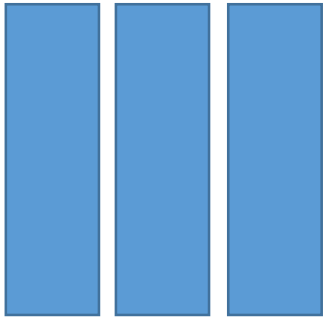


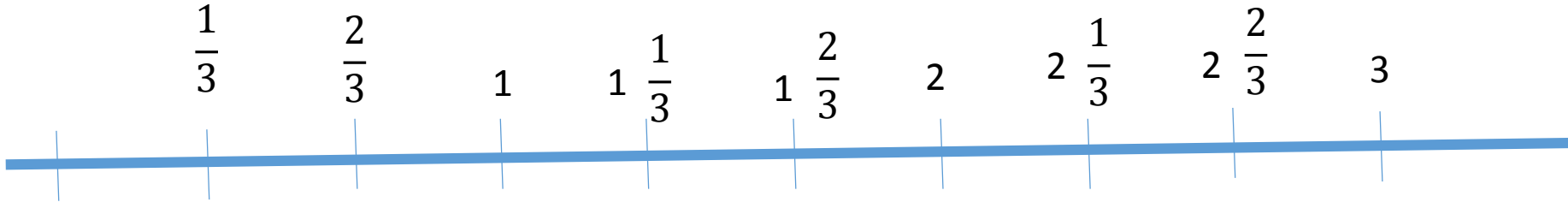












The class together says the numbers (starting top or bottom), or they can add 1, subtract 1, etc

3

5

6

2

9

2

8

4

3

7

1

6

2 7

3 5

8 1

4 4

3 7

7 2

1 9

6 8

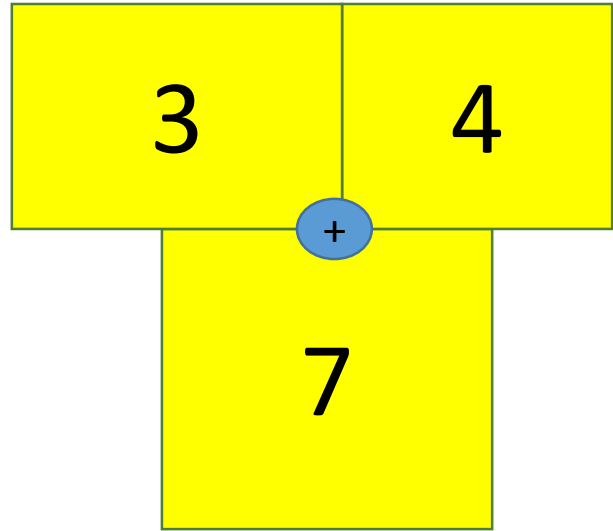
# Sequences of numbers

- Saying sequences forward and backwards, by any number, eventually starting anywhere are probably the most critical mental computations.
- Which aspect of saying sequences do your students find (surprisingly) difficult that they need to practice?
- Plan your next 20 “Saying sequences ” activities

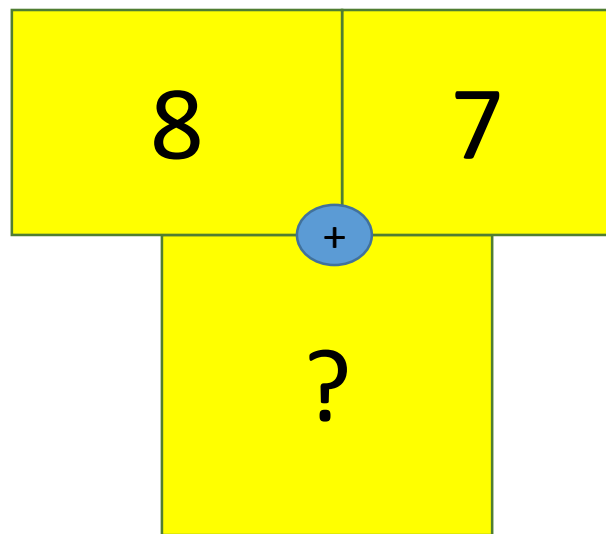
# Sequences of numbers

- Plan your next 20 “Saying sequences ” activities

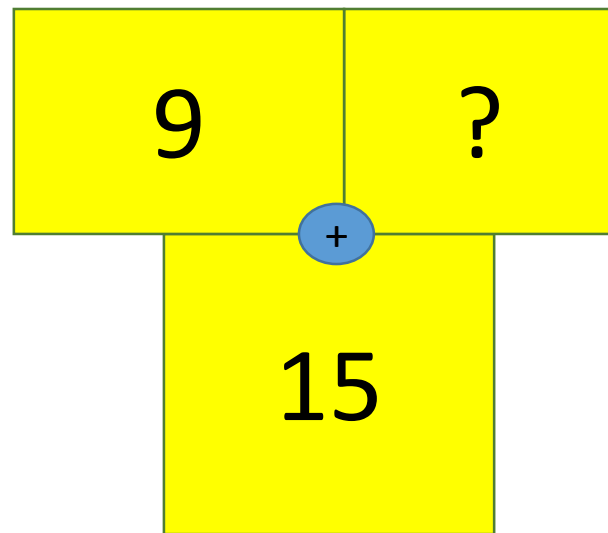




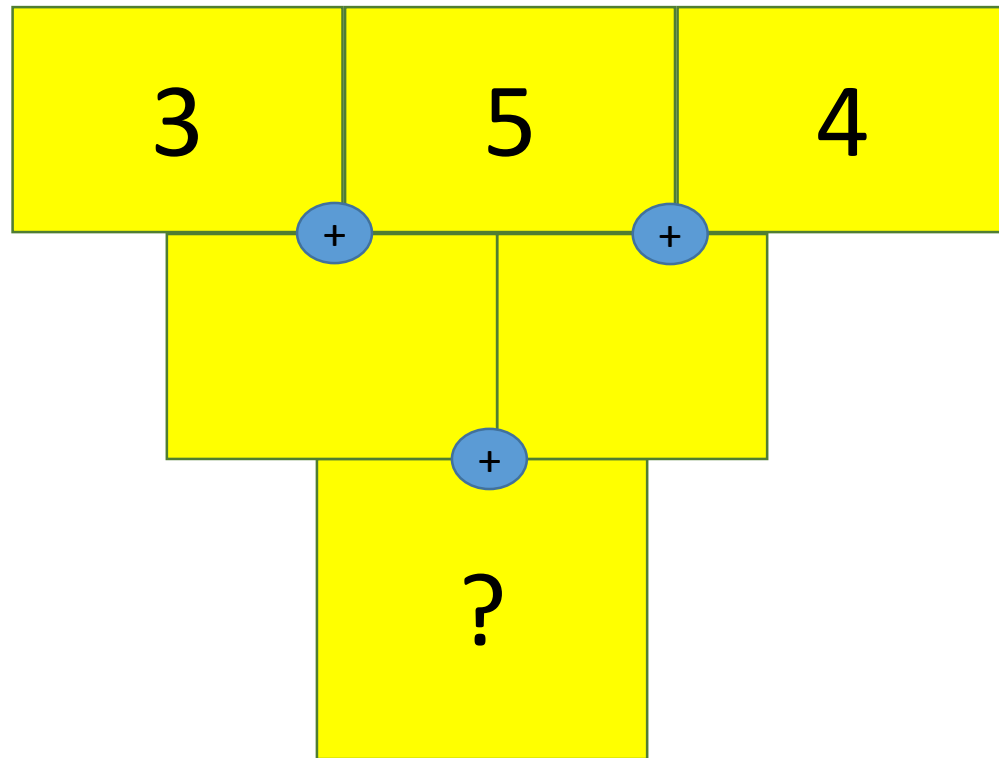
PMA fluency



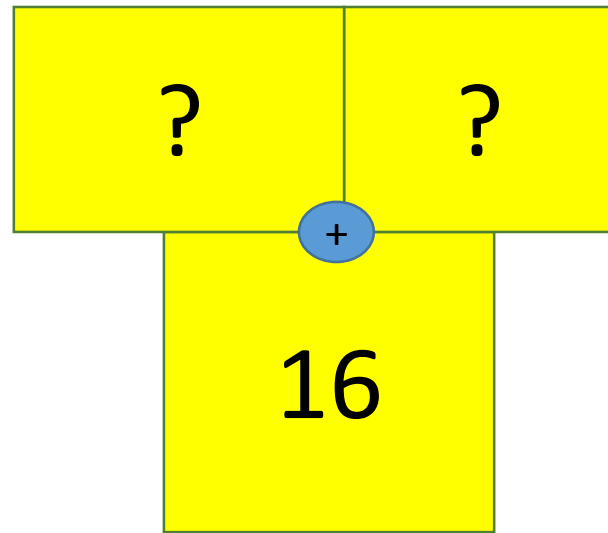
PMA fluency



PMA fluency



PMA fluency



PMA fluency



# Tenzi

- Each of 4 players have 10 dice.
- The goal is to roll the dice until all dice show the same number.
- On the first roll, each player chooses a number and puts those dice aside
- Players keep rolling the other dice, putting the dice with their number aside on each roll
- The winner is the first to finish.

# Alternate ways of playing

- Allocate each player a number. They roll the dice and turn the dice (physically) until all dice show their allocated number (then explain that that is the last time they are allowed to turn the dice by hand)
- Roll the dice and arrange them in order.
- Keep rolling the dice until they have each of 1, 2, 3, 4, 5, 6