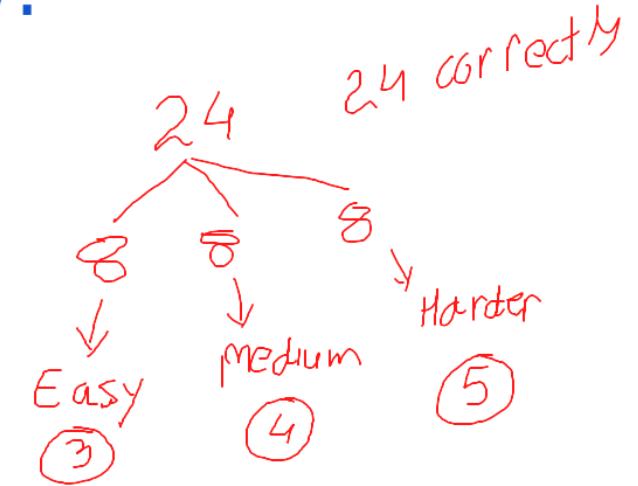




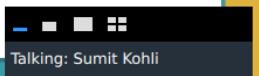
# What is Math Kangaroo?



The Math Kangaroo competition is a test.

PNG  
PDF

# Patterns



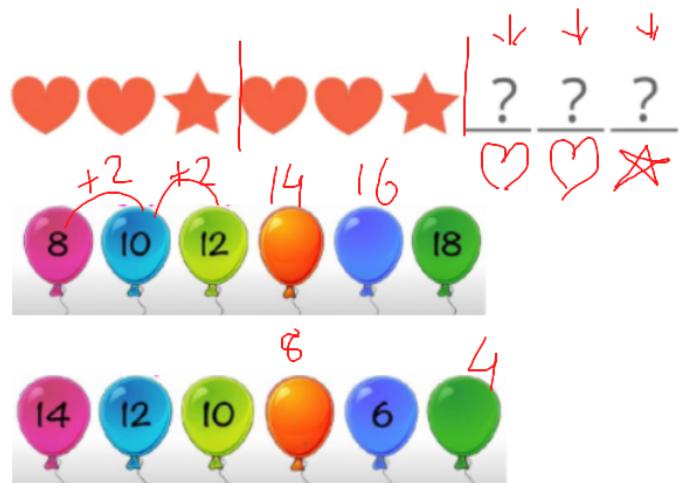
Patterns

A pattern is the way objects are arranged. You can create patterns with shapes, numbers, and colors. When you create a pattern, you arrange them according to a **rule**

Main types of patterns in Math Kangaroo: addition, subtraction, picture, color or event patterns.

- Repeating

pattern

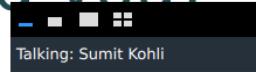


- Growing

pattern

# Patterns

Can you think of some patterns around you?

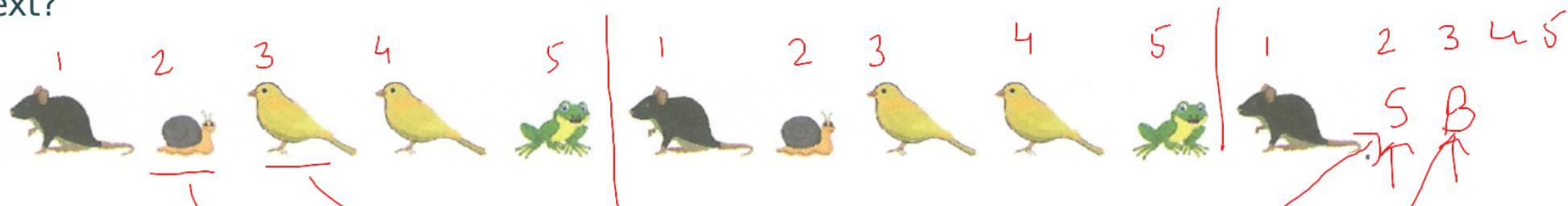


xamples: daily routine, seasons, days of the week, Math Kangaroo class  
on a certain day of the week. Increasing patterns: height of a tree, age of a  
person. Decreasing patterns: minutes left in the lesson.

PNG  
PDF

1. A magician is pulling toys out of his top hat. He always pulls out the toys in the same order, shown in the picture:

The pattern in the picture repeats every five toys. Which two toys does he pull out next?



PNG  
PDF



Mute



Stop Video



Security

Participants  
8

New Share



Pause Share



Annotate



Remote Control



Start Summary



AI Companion



...

You are screen sharing

Stop Share

MK 2006 #8

2. After 1 comes 3, after 3 comes 5, after 5 comes 7. What are the next 3 numbers? Patterns

1 → 3 → 5 → 7 → 9 → 11 → 13

+2      +2      +2      +2      +2      +2



9, 11, 13

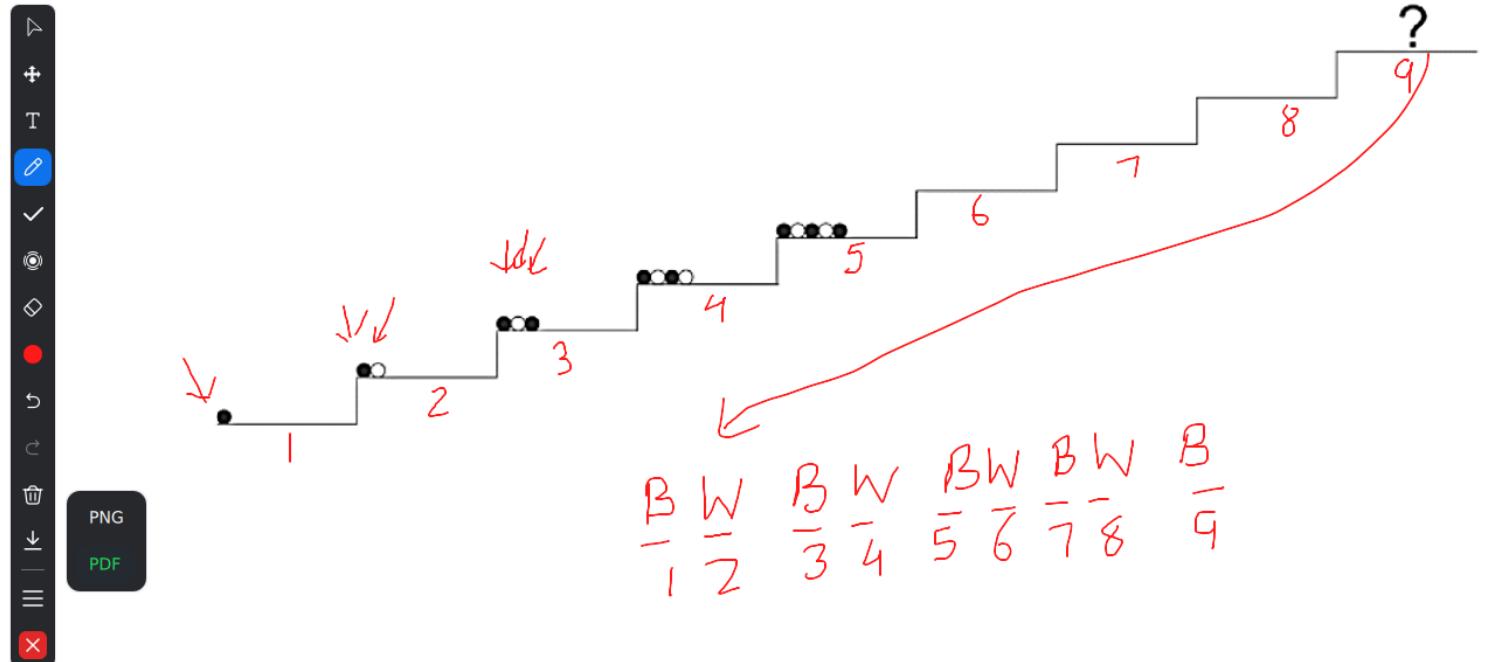
PNG

PDF

MK 2016 #9

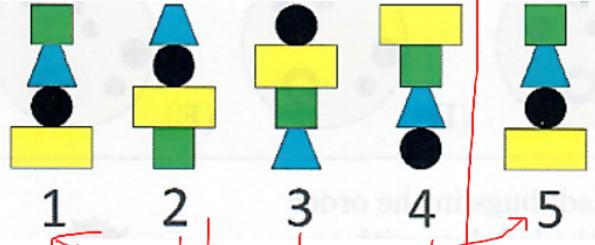


3. Sophie arranges balls on a stairway in a pattern as shown on the picture. Patterns  
How will the balls be arranged on the step with the question mark?



MK 2018 #7

4. Emilie builds towers in the following pattern:



What will the  $16^{\text{th}}$  tower look like?

5	6	7	8
9	10	11	12
13	14	15	16



PNG

PDF

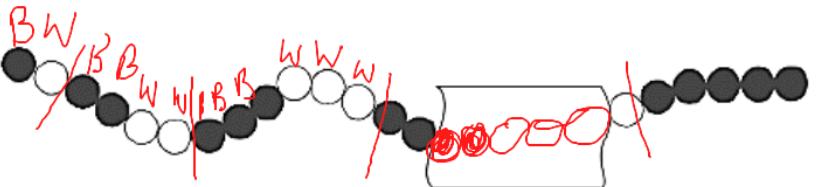
You are screen sharing Stop Share



## Patterns

MK 2006 #22

### 5. Which dots are covered?



B B W W W

B B W W W



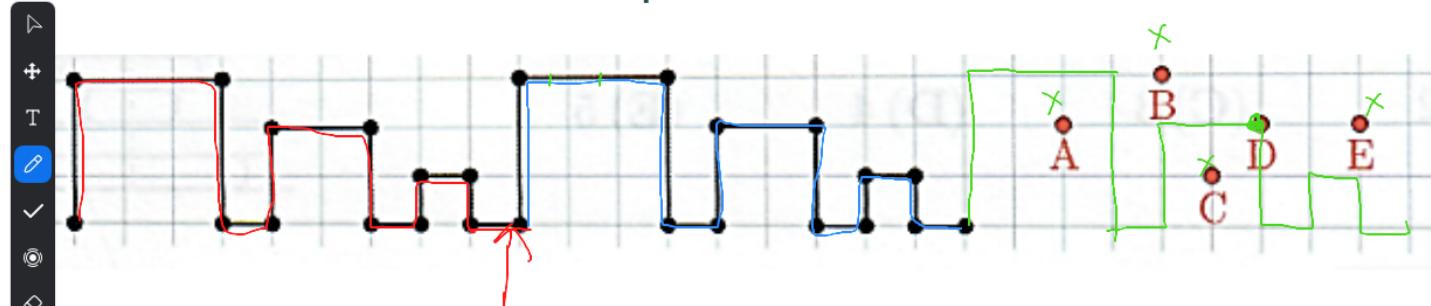
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PDF

MK 2018 #11

6. Peter drew a pattern twice, as in the picture. Which point will he reach when he draws the third pattern?

D, E



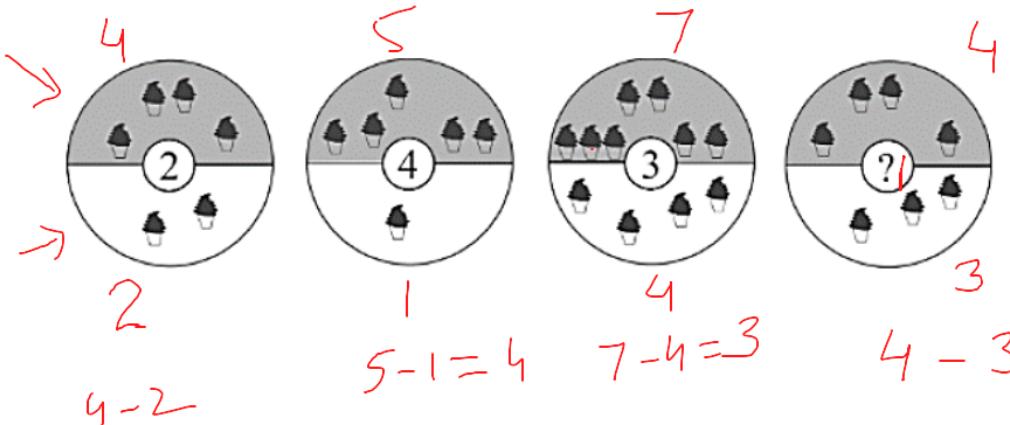
PNG  
PDF

D

Patterns

MK 2005 #22

7. What number is covered by "?" in the last picture below?



6, 1  
5

Talking: Archer Wong 1st Gra...



PNG

PDF