While folks are joining

Get you laptops ready and login to www.crio.do.
We will be coding away in the session!

DSA-1

Session 5

What’s for this session?

- Factorial
- Series
- Problems
    - Factorial of a large number
    - Sum of given series 2
    - Find the quadrant

Factorial

- What is Factorial?
  - Factorial of N is the multiplication of positive integers from 1 to N.
  - Example : 3! = 3 x 2 x 1 = 6

  $n! = n \times (n-1) \times \ldots \times 1$

- How would you calculate the factorial of a number?

How to Approach Problems?

For any given problem, following these milestones will help you solve the problem systematically:

- **Milestone 1** - Understand the problem statement and confirm your understanding with some examples or test cases, including edge cases.
- **Milestone 2** - Think about approaches and select the best one you know. Explain your approach to a 10 year old. Write the pseudocode with function breakdown.
- **Milestone 3** - Expand pseudocode to code
- **Milestone 4** - Demonstrate that the solution works

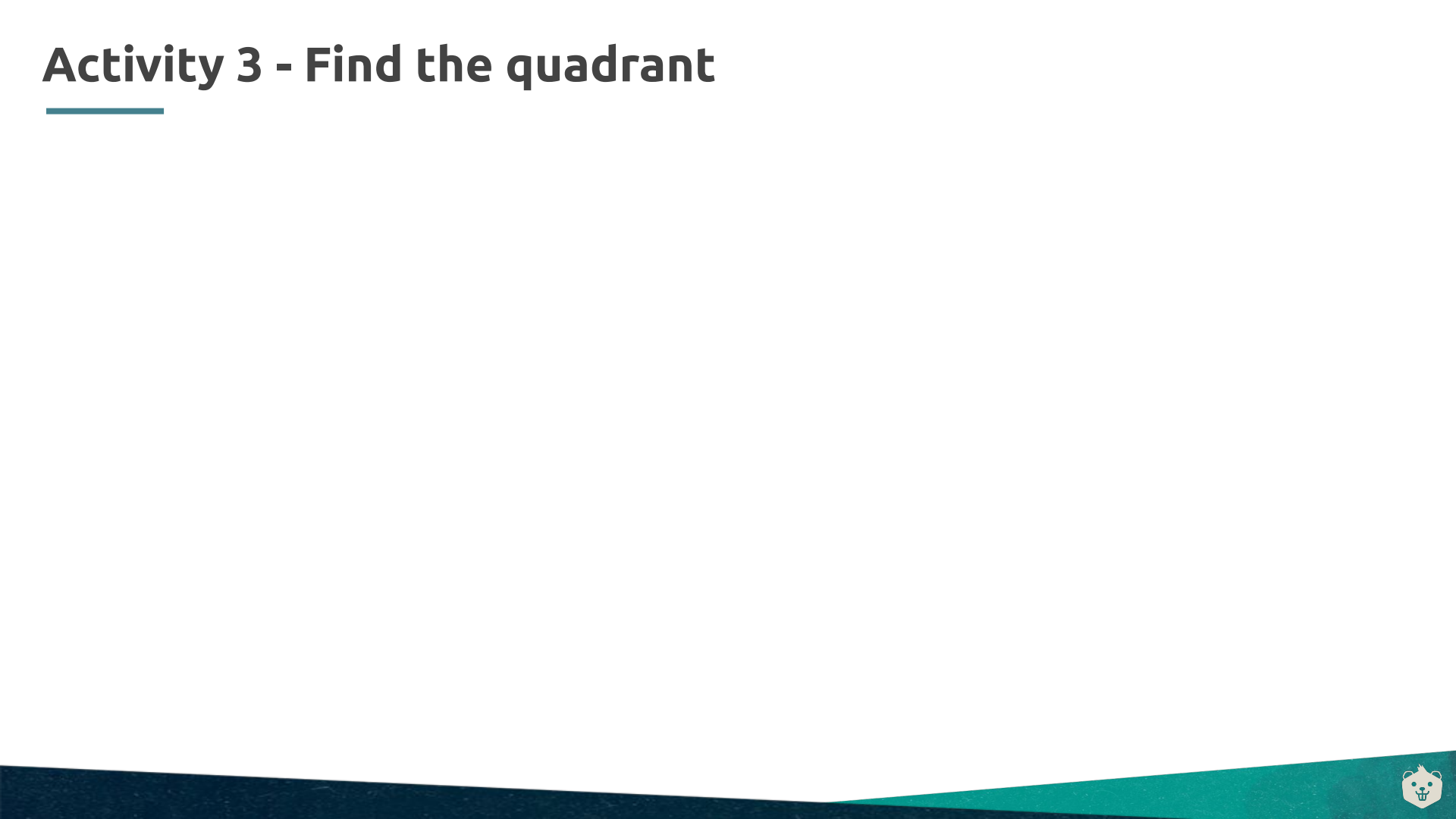
Activity 1 - Factorial of a large number

Series

- What is a series?
  - The sequential arrangement of numbers in which the numbers are following some pattern/arrangement.
    - Example : 2, 4, 6, 8 (a series of even numbers)
- Standard series
  - Arithmetic Progression
  - Geometric Progression

Activity 2 - Sum of given series - 2

Activity 3 - Find the quadrant



Questions?

Take home exercises

- Factorial of a given number
- Sum of given series I
- Find the grade

To be solved before the next session on Saturday, 11 AM

Feedback

Thank you for joining in today. We'd love to hear your thoughts and feedback.

https://bit.ly/dsa-nps

Thank you