

# Preparation Tasks

## Preparation Kit 2025



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Dartboard Challenges

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Activity Sheet p.12 Preparation Kit

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Dartboard Challenges

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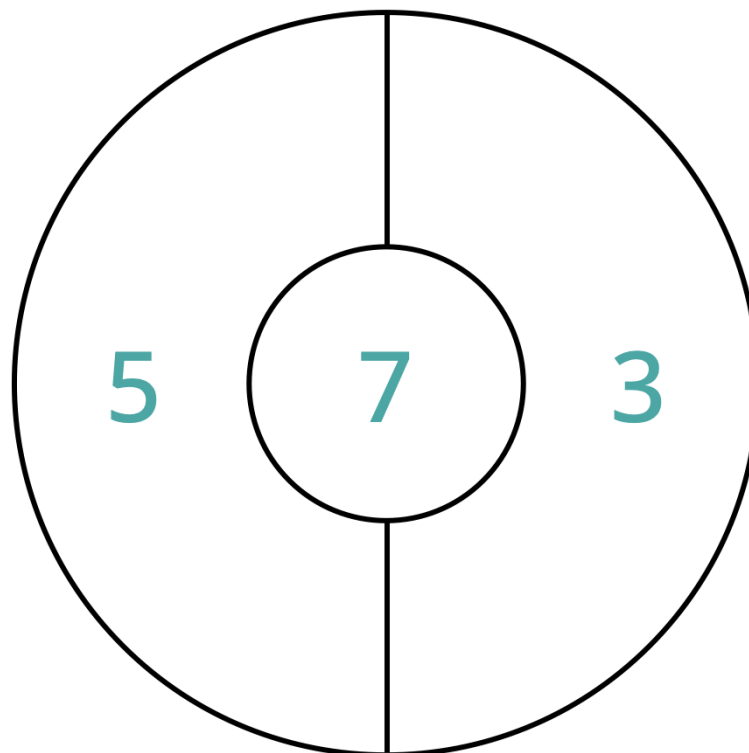
# Preparation Task #1

## Dartboard Challenges



Rebekah and Sung are working together to solve a problem.

In this problem, 3 darts will land somewhere on the dartboard and earn points.



# Preparation Task #1

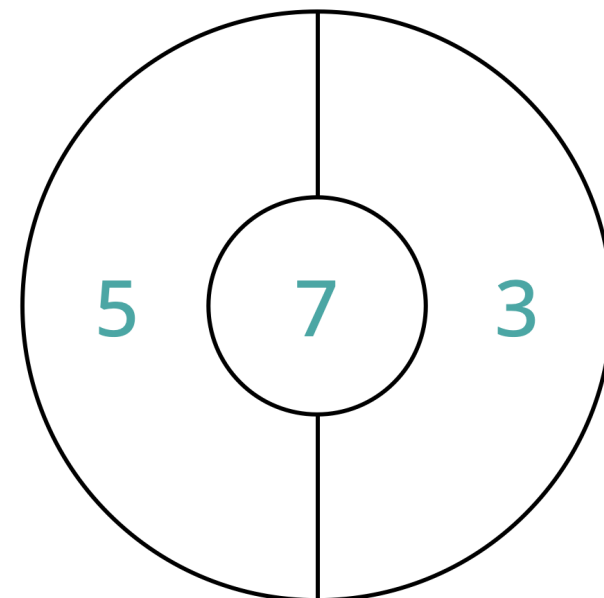
## Dartboard Challenges



Their teacher wrote some possible scores up on the whiteboard:

17 11 23 9 14 19

Right away, Sung said, 'There's **no way** someone could score **14**.'



# Preparation Task #1

## Dartboard Challenges



It's time to:

- Think
- Explain
- Find
- Prove
- List

# Preparation Task #1

## Dartboard Challenges



It's time to:

- Think
- Explain
- Find
- Prove
- List

Work with a partner to complete the tasks on your activity sheet.

**Get ready** for a class discussion where we will share and listen to ideas.

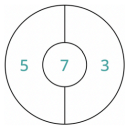
Preparation Task #1  
Dart Board Challenges

Names: \_\_\_\_\_

Rebekah and Sung are working together to solve a problem.  
In this problem, 3 darts will land somewhere on the board and earn points.  
Their teacher wrote some possible scores up on the whiteboard:

17 11 23 9 14 19

Right away, Sung said, "There's **no way** someone could score 14."



**Think about** the 3 numbers on the dart board.  
**Explain** how Sung new right away that 14 is an impossible score.

**Find** the other score in the list that is not possible.  
**Prove** that there is no way to get that score.

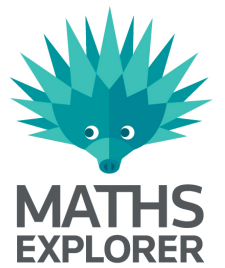
**Make a list** of all scores that are possible when 3 darts land on the dartboard.  
You might like to organise them from the **lowest** to **highest** score.

**Find** numbers that can be scored in more than one way.

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# Preparation Task #1

## Dartboard Challenges



Who can **explain** how Sung knew right away that 14 is an impossible score?

Who **found** the other score in the list that is impossible to get?

Who can **prove** that this score is not possible?

Who can **list** all possible scores?

Who can **identify** scores that you can get in more than one way?

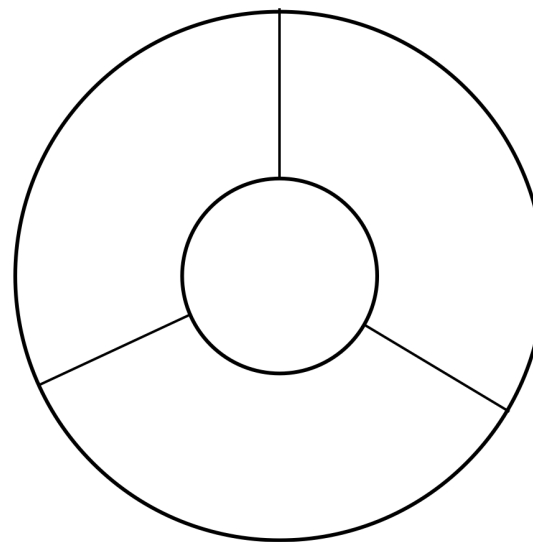
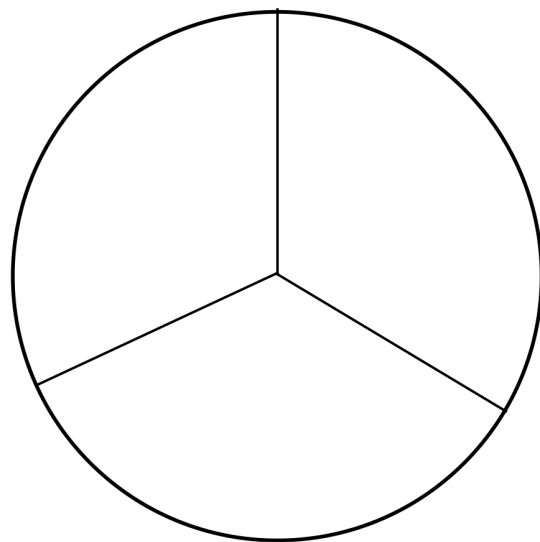
# Preparation Task #2

## Dartboard Challenges



It's time to:

- Design



# Preparation Task #2

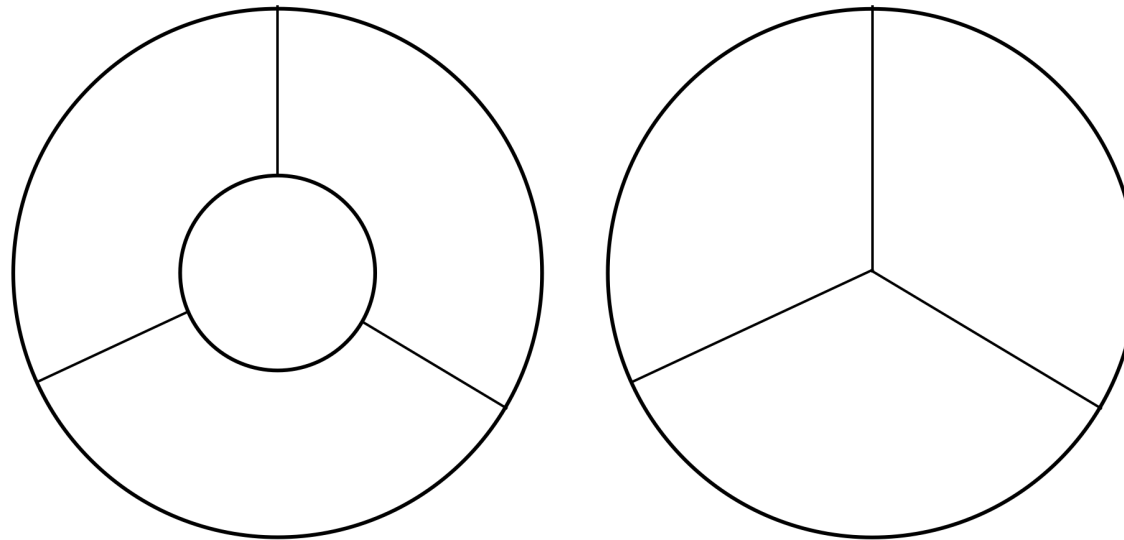
## Dartboard Challenges



It's time to:

- **Design**

Work with a partner to design dartboards where it is possible to score **9**, **14** and **21** with **3 darts**.



The first dartboard gives you 4 regions for the 3 darts to land.

The second gives you only 3 regions for the 3 darts to land.




# Preparation Task #2

## Dartboard Challenges



There is a **Design** page where you can try lots of different combinations and ideas.

There is a **Results** page where you can show the different dartboard that you have designed.

Names: \_\_\_\_\_ 

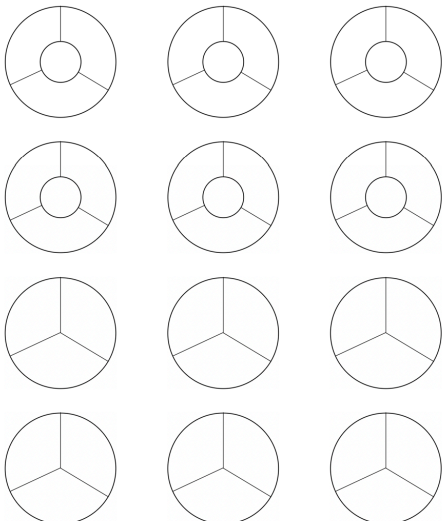
**Preparation Task #2  
Dartboard Design**

Work with a partner to design dartboards where it is possible to score **9, 14 and 21 with 3 darts**. Experiment using these blank dartboards below.

Try lots of different combinations and ideas. The first type of dartboard gives you 4 regions to use with 3 darts.


The second type only has 3 regions that you can use to score the totals with 3 darts.

**Record** your solutions on the Dartboard Results activity sheet.



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Names: \_\_\_\_\_ 

**Preparation Task #2  
Dartboard Results**

Show the different dart boards you have designed where it is possible to score **9, 14 and 21 with 3 darts**.

How to score **9**: \_\_\_\_\_ List all other possible scores: \_\_\_\_\_

How to score **14**: \_\_\_\_\_

How to score **21**: \_\_\_\_\_

How to score **9**: \_\_\_\_\_ List all other possible scores: \_\_\_\_\_

How to score **14**: \_\_\_\_\_

How to score **21**: \_\_\_\_\_

How to score **9**: \_\_\_\_\_ List all other possible scores: \_\_\_\_\_

How to score **14**: \_\_\_\_\_

How to score **21**: \_\_\_\_\_

How to score **9**: \_\_\_\_\_ List all other possible scores: \_\_\_\_\_

How to score **14**: \_\_\_\_\_

How to score **21**: \_\_\_\_\_

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