

Number challenge

Syllabus focus area and content group

Represent numbers A

- Whole numbers: Recognise, represent and order numbers in the millions
- Whole numbers: Apply place value to partition, regroup and rename numbers to 1 billion

Additive relations A

- Apply efficient mental and written strategies to solve addition and subtraction problems

Suggested outcomes

- MA3-RN-01
- MA3-AR-01

Resources

- Numbered bean bags or playing cards
- Hoops
- 6-sided dice

Activity set-up

- Arrange hoops in a large circle (1 hoop per 2 students)
- Scatter bean bags or playing cards in the middle of the circle
- Place a dice at each hoop
- Group students in pairs

Learning task

The aim of this game is to generate the highest total by making the smallest number, largest number, an odd and an even number.

Students:

- roll the dice and relay run one student at a time to collect the number of bean bags/cards from the middle as represented by the dice. For example, if a student rolls a 4 they collect 4 bean bags/cards.
- make and record the largest number, smallest number, an odd number and an even number using the numerals on the bean bags/ cards they collected.
- use an efficient strategy to find the total of the 4 numbers made.
- return bean bags/cards to the middle and play resumes by rolling the dice again.

The pair with the largest total is the winner and receives a point.

Increase/decrease challenge

- Use a 4-sided dice
- Use a 10-sided dice

Talking and thinking like mathematicians

What strategies did you use to make the largest possible total? How did you use your knowledge of place value to create the largest possible total? What did you reflect on and change in later rounds?

