

Bean bag fractions

Syllabus focus area and content group

Representing quantity fractions A

- Compare and order common unit fractions
 - Compare unit fractions as numbers to the benchmark value 12
 - Compare and order unit fractions with denominators of 2, 3, 4, 5, 6, 8 and 10 by placing them on a number line

Suggested outcomes

- MA3-RQF-01
- MAO-WM-01

Resources

- 4 hoops per group
- 24 bean bags per group
- 4 whiteboards and whiteboard makers per group

Activity set-up

- 4 hoops side-by-side with a line marked approximately 10 – 15m away from hoops.
- Place a whiteboard behind each hoop.
- On the line opposite hoop 1 place 3 bean bags, hoops 2 place 5 beans bags, hoop 3 place 6 bean bags and hoop 4 place 10 bean bags.
- Label hoops as 3 throws, 5 throws, 6 throws and 10 throws.
- Form student groups of 4

Pre-task: Students will need to have had experience with identifying fractions of an amount and ordering fractions on a number line.

Learning task

- Student's take it in turns to throw bean bags into hoops while standing behind the marked line.
- Students calculate how many bean bags they successfully threw into each hoop.
- Students represent amount as a fraction on whiteboard.
- Students order fractions on whiteboard in ascending order using visual of bean bags as concrete material.
- Repeat activity as required.

Increase/decrease challenge

- Represent amounts as a fraction and decimal.
- Increase or decrease the number of bean bags thrown to alter the denominator.
- Represent fraction in its simplest form
- Order fractions as a whole class.

Talking and thinking like mathematicians

How did you use your knowledge of fractions to complete this task? Is there more than one way to represent a fraction of an amount? How did you achieve a score of 1 whole? Did the amount of bean bags you threw effect the fraction? How?