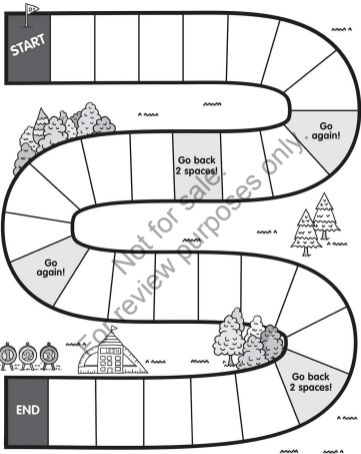


Fraction Land Board



Objective: Compose wholes showing halves, thirds, and fourths.

MATERIALS NEEDED

- dice (1 per pair/group)
- paper clips (1 per pair/group)
- pattern blocks (4 of each shape per camper) (or downloaded from digital materials)
- small objects to use as game pieces (small enough to fit in the spaces of the Fraction Land Board)
- Fraction Land Board (1 per pair/group)
- Fraction Land Spinners (1 set per pair/group)

PREP

Print and copy the Fraction Land Board and the Fraction Land Spinners. Print and cut apart the pattern blocks (if using the downloadable pattern blocks). Place each set of pattern blocks into a sandwich bag for ease of use, if applicable.

Review the Skill

Say: Remember that we can put shapes together to create a new shape. And that we can compose a shape that shows halves, thirds, and fourths. There are two halves in one whole. There are three thirds in one whole. How many fourths are in one whole? Allow campers to think and then share that there are four fourths in one whole. Say: Let's see how we can use that information to make some shapes. Select a pattern block using the spinner and review how to compose two of the shapes to create a shape that shows halves. Repeat the process for thirds and fourths.

Directions

Played in pairs or small groups

Goal: Compose wholes showing halves, thirds, and fourths to advance on a board game.

1. Distribute dice, paper clips, pattern blocks, game pieces, Fraction Land Boards, and Fraction Land Spinners to campers.
2. Players select a game piece and place their game piece at Start.
3. Player A places the loop of the paper clip over the center of a spinner then places the sharpened end of a pencil on the center of the spinner to create a spinner dial. Player A spins each spinner to determine a shape to use and a fractional portion to show.
4. Player A composes a figure that shows the fractional portion using the assigned shape then explains how their shape shows the fraction. For example, if Player A spins a square and thirds, they compose a figure composed of 3 squares and say, "My figure shows thirds because 3 squares make the whole shape." The other players may help, if needed.
5. Once Player A has composed a correct shape, they roll the die and move their game piece forward that number of spaces.
6. The next player takes a turn.
7. The game continues until a player reaches the end.

Increase Access

Provide several examples of each fraction on the board or as reference for players to look at as they create their shapes.

Objective: Add using regrouping with one and two compositions.

MATERIALS NEEDED

Classroom Materials

- base-ten materials (or download from digital materials)
- dice (2 per pair or group)
- place-value mats (or download from digital materials)

Download and Print

- none

PREP

If needed, print the place-value mats and base-ten materials to create 1 set per player. Cut out the base-ten materials.

Review the Skill

Say: Remember that we can use our base-ten materials to help us add numbers. And that we can trade 10 unit cubes for 1 ten rod or we can trade 10 ten rods for 1 flat. What does the flat represent? Allow campers to explain that a flat represents 100. Review how to use the base-ten materials to add $245 + 59$ by composing a ten when adding the ones and then composing a hundred when adding the tens.

Directions

Played with a partner or small group

Goal: Add and compose tens until the total is 1,000.

- Distribute base-ten materials, dice, and place-value mats to players.
- Players find a place in the room to play and place the place-value mat in front of them.
- Players roll a die to determine who goes first, largest roll first.
- Player A rolls the two dice. Then, Player A decides which number they will make with the two digits. For example, if Player A rolls a 3 and a 5, they can choose to add 35 OR 53 depending on which value gets them closer to 1,000 without going over.
- Player A adds that quantity of rods and cubes to their place-value mat. If possible, Player A trades 10 unit cubes for a 10 rod and/or 10 rods for a flat. Player A writes the addition statement and the total on a piece of paper.
- Player B rolls the dice, completes the addition using the base-ten materials, and records the addition on paper.
- Players continue taking turns until one camper reaches 1,000 total, showing 10 flats (or trading 10 flats for a 1,000 block, if available). Players must reach 1,000 exactly on the last roll (so if a player rolls a quantity that would sum to greater than 1,000, they lose that turn) but can choose to roll one die or two dice when they get close to 1,000.

Increase Access

Allow players to work with a partner.

Increase Challenge

Have players attempt to add using addition sentences and regrouping on paper first, then check their sum using materials.

Objective: Review skills from MathCamp.

MATERIALS NEEDED

Classroom Materials	Download and Print
<ul style="list-style-type: none"> - ball for tossing - cup - trash can 	<ul style="list-style-type: none"> - none

PREP

Write a variety of problems onto slips of paper and place into a cup. Examples of problems include problems from earlier lessons or problems such as: $43 + 27$; $126 + 55$; $987 - 249$; $620 - 63$. How many balls are in 3 packages of 4 balls? How many buttons are in 5 packages of 2 buttons?

Review the Skill

Say: What are some strategies that we can use to help us solve addition, subtraction, and equal groups problems? Allow campers to share ideas. Possible strategies include using concrete models like base-ten blocks, drawing pictures, using number lines, or using place-value strategies.

Directions

Played in small groups

Goal: Solve problems correctly and earn points as a team.

1. Select a problem from the cup. Read the problem aloud or write the problem on the board.
2. Players will individually solve the problem and check their answers with their teammates.
3. Select a player from the first team to share their team's answer. If the answer is correct, the team earns 1 point and a player from the team gets to shoot the ball from a designated location into the trash can. If the player makes the shot, the team earns another point.
4. Repeat the process, rotating through teams.
5. The team with the greatest score when time is up is the winning team.

Increase Access

Provide players with concrete materials to help them solve the problems.