



# First to 20

Game 24 from *Math Fact Fluency*

## About First to 20:

- Purpose: derived fact strategies for addition and subtraction
- Targets sums and differences within 20
- Prompt students to state and discuss strategies before and after game
- Think Addition is an effective strategy in which students approach learning subtraction facts by thinking of related addition facts.
- One way to help students see the connection between known addition facts and subtraction facts is to practice generating “fact families” starting with the subtraction fact and inviting students to offer the related addition facts.
- Recording the fact families as students play reinforces the connection between addition and subtraction.

## About Games and Math Fact Fluency:

Games are fun. But, more importantly, games are effective ways to support *learning*. Games provide opportunities for:

- low-stress practice of (1) facts and (2) strategies (both outcomes are critical to math beyond the basic facts!).
- think aloud, an effective learning strategy. Therefore, students should develop the habit of verbalizing their mathematical thinking out loud.
- student listening and learning from peers. Therefore, discussing strategies before and after playing allows students opportunities to learn from each other.
- teachers to formatively assess and plan instruction. Therefore, at times, use an observation tool to record how students are progressing.

Effective math fact fluency games remove time pressure and allow students time to think. That means no time component. **Each** player has their own cards or dice to roll, so they are not racing each other. Scoring is de-emphasized. **Thinking strategies are front and center.**

## First to 20

Groups of 2 to 4 players

**Materials:** one die, one recording table, a pencil for each player



Roll														
Total														



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### How to Play:

1. Players take turns rolling the die and record their score on his/her recording table.
2. On each turn, the player adds the number they rolled to their total from the last round.
3. If a roll results in a sum greater than 20, the player must subtract the number rolled.
4. The game ends when one player has an exact score of 20.

**Game in Action:** The game ends when one player has an exact score of 20. Use a recording table to keep track of totals.

For example: Player 1 rolls "4" on the fifth turn and must subtract that value from "19" because the sum is greater than 20. Player 2 rolls "6" on the fourth turn and must subtract that value from 15.

### Player 1

Roll	6	5	3	5	4									
Total	6	11	14	19	15									
(must subtract 4 because $19 + 4$ is greater than 20)														



### Player 2

Roll	5	3	7	6										
Total	5	8	15	9										
(must subtract 6 because $15 + 6$ is greater than 20)														



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## Possible Variations:

1. Start at 20 and countdown to 0.
2. Change game to First to 30.
3. Use a 10-sided die or dice.
4. Use two dice and change the game to First to 100.