



Rectangle Fit

Game 35 from *Math Fact Fluency*

Math Fact Fluency Background:

- Purpose: derived fact strategy game for multiplication and division
- Purposeful, frequent practice is needed for students to develop the fluency to progress to Phase 3 with multiplication and division facts.
- The key is to make practice through games as meaningful and strategy focused as possible.

About Games and Math Fact Fluency:

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

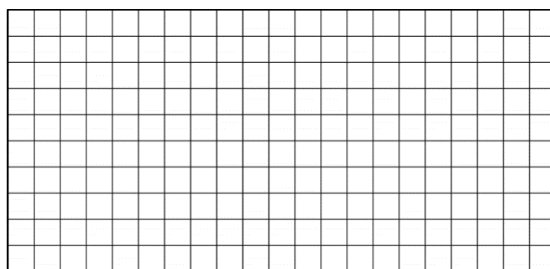
- low-stress practice of (1) facts and (2) strategies (both outcomes are critical to math beyond the basic facts!).
- think aloud, an effective learning strategy. Therefore, students should develop the habit of verbalizing their mathematical thinking out loud.
- student listening and learning from peers. 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.**

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2 or more players

Materials: two dice; Rectangle Fit Game Board or centimeter grid paper one per player (1- or 2-centimeter paper can work), markers





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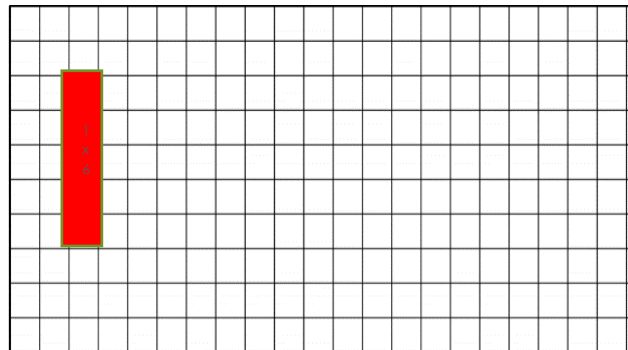
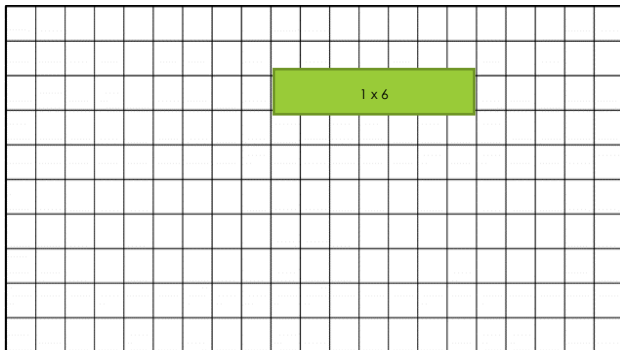
How to Play:

1. Player 1 rolls two dice.
2. Each player chooses a place on their game board to shade a rectangle with the dimensions rolled.
3. Players record the related multiplication fact inside the scorecard on their game board. Rectangles cannot overlap.
4. Leader continues to roll dice and players mark out rectangles until there is no more room on their game board.

Game in Action: Players win when other player(s) can no longer fit a rectangle with the given dimensions on their game board.



For example: Player 1 rolls “6” and “1”, shades that rectangle on game board, and records the product on their score card.



Possible Variations:

1. Use 10-sided dice with a game board with more unit squares.
2. Players who are out of the game can record the fact for which they lost on the back of the game board and may keep playing unofficially.