

Double-Digit Splat!

Object of the Game

Players take turns drawing two number cards and multiplying the numbers together. The player with the greater product total after four rounds wins. Beware of the Splat! card, or you could end up with 0!

Materials

- 1 set of Double-Digit Splat! Cards
Print the cards or make your own. You can use paper, a grocery bag, or a cereal or other food box to make some cards.
- 1 Double-Digit Splat Record Sheet
Print the record sheet or make your own.
- Pencils or pens
- Splat! Hundreds Grid (optional)

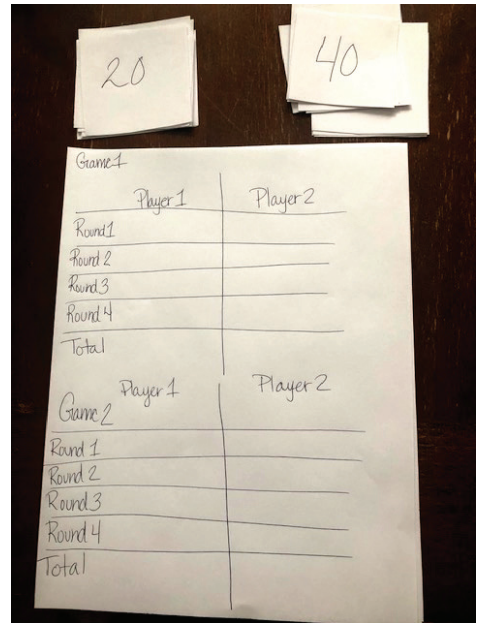
Skills

This game helps us practice

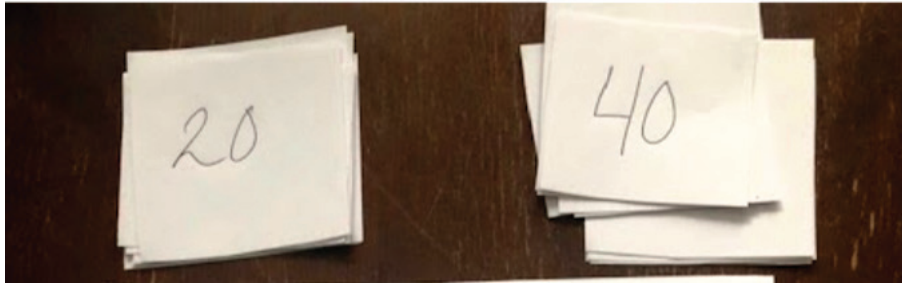
- Multiplying 2-digit numbers
- Adding multi-digit numbers
- Recognizing patterns that occur when multiplying multiples of ten

How to Play

1. Get ready to play:
 - » Print or make your game cards and record sheet.
 - » Divide the Double-Digit Splat! Cards in two piles.
 - ⌘ Pile 1 has 20, 30, 40, 50, 60 and a Splat! card.
 - ⌘ Pile 2 has 40, 50, 60, 70, 80, and a Splat! card.
 - ⌘ Mix up the cards in each pile and place them facedown.
 - » Decide which player will go first.



- Player 1 takes one Double-Digit Splat! Card from each pile, multiplies the numbers to get the product, and records the equation on the record sheet.



Player 1: I got a 20 and a 40. Let's see... I know that 2 times 4 is 8, so the answer must be 800 because that's 100 times as much as 8.

- Then Player 2 takes a turn drawing two cards, multiplying the numbers, and recording the equation.
- Each player gets four turns to draw cards, multiply, and record the product.
 - » If a player draws a Splat!, they get a 0 for that round.
 - » Players may use the Splat! Hundreds Grid to help determine the product (answer).
- After four rounds, each player adds their products. The player with the higher total wins the game.

Game 1		
	Player 1	Player 2
Round 1	$20 \times 40 = 800$	$20 \times 40 = 800$
Round 2	$30 \times 80 = 2400$	$50 \times 80 = 4,000$
Round 3	$40 \times 80 = 3200$	$30 \times 70 = 2,100$
Round 4	$20 \times 40 = 800$	$50 \times 50 = 2,500$
Total	7,200	9,400

Player 1: I got 7,200. Player 2 got 9,400. Player 2 won the game by 2,200 points.

Tips for Families

Before you play:

- Think about what you know about multiplying 1-digit factors. How can this help you multiply 2-digit factors?
Examples: $3 \times 2 = 6$, $30 \times 2 = 60$, and $30 \times 20 = 600$
- Think about each factor as a 1-digit number $\times 10$. How will this help you multiply two numbers that are multiples of 10?
Example: $30 \times 20 = (3 \times 10) \times (2 \times 10)$
Thirty times twenty is the same as three groups of 10 times two groups of 10.
- Reference the Splat! Hundreds Grid. Each square represents 10×10 or 100. Does this help you to visualize multiplying two factors that are multiples of ten?

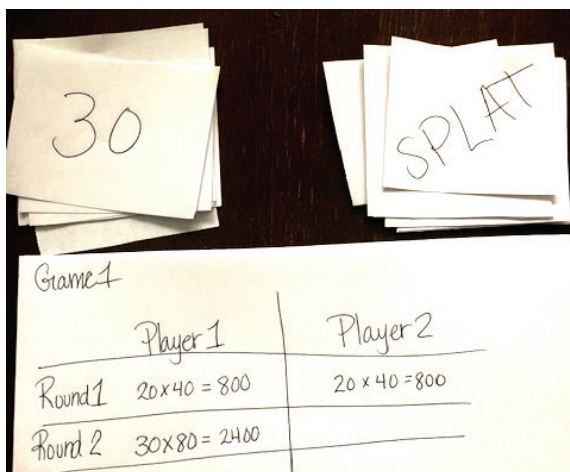
As you play:

- Talk about the products. *What do they have in common with products of basic facts? What do all of the products have in common?*
- Talk about your strategy. *Is there a way that you can multiply the numbers that makes it easier?*

Change It Up



Making even small changes to a game can invite new ways of thinking about the math. Try making one of the changes below. How did it change your strategy for winning the game?

- Make up your own numbers for the number cards. Try 1-digit numbers or 2-digit numbers that are not multiples of ten.
- Change the rules so that the player with the lower total wins.
- Change the rules so that the Splat! card can become any multiple of 10 between 20 and 80.



Joelle drew a 30 from the first pile and a Splat! from the second pile. She decided to make the Splat! card worth 80. So she wrote $30 \times 80 = 2400$ for her turn.



20	30	40
50	60	
40	50	60
70	80	

Double-Digit Splat! Record Sheet

Game 1		
	Player 1	Player 2
Round 1		
Round 2		
Round 3		
Round 4		
Total		

Game 2		
	Player 1	Player 2
Round 1		
Round 2		
Round 3		
Round 4		
Total		

Splat! Hundreds Grid

