

# High Roller

**Grade Level:** 5-6

**Number of Players:** 2 to 4 players per group

**Materials Needed:**

- Three dice per group
- High Roller Recording Sheet
- Optional:
  - calculator
  - extra dice

**Mathematical Understanding:**

- Recognizing quantities and numerals that are greater than and less than
- Meaning of multiplication and application with strategies to create the largest products possible

\*\*Children may use the calculator for support as needed.

**Object of the Game:** To identify numbers that are greater than and less than and then multiply those numbers to create the greatest factor.

**Directions:**

Player 1 rolls 3 dice, identifies and keeps the die showing the greatest value, and rerolls the other two die again. The values shown on the two dice are used to create a two-digit number.

Player 1 then multiplies the value of the first role with the two-digit number created on the second roll and records the product on the recording sheet. This concludes one round of play for Player 1.

Each Player in turn repeats these steps.

Play continues until each Player has played 2 rounds.

Each Player then adds the products from both rounds. This sum is the players total score.

The winner is the player with the greatest total score after 2 rounds of play.

**Variations:** Players may use single digit factors using the three or more dice. Players roll until they must keep the value on the last die rolled. They then multiply all three rolls as separate factors to create one product.

By adding extra dice to the roll, players may decide to play with three-digit or larger numbers!

**Optional:** The game may be extended for to include more rounds.

The game can be played with three or more dice. Players roll as many times during each round as there are dice. The player may keep the highest number on each roll and on the last roll, multiply all values to create one factor.

Players may need to work together to identify the greater number on the dice, to multiply the values or to add the factors to get total scores for players.

**Guiding Questions:**

What do you know?

Where do you think you will begin?

Where are you stuck? What is confusing? What are you wondering about?

What are you going to try?

What did you think about to come to your answer?

**Differentiation:**

To keep all players involved, other players may be given the responsibility of using the calculator to confirm the calculations.

On a place value chart or similar organizer, all students can write each player’s score in the box in the column for the appropriate numeral.

**Game Trajectory:**

**Pre K-K:** Players roll dice to recognize numerals, compare numbers to identify which is greater than or less than, write numerals, and determine sums.

**K-2:** Players roll dice to recognize numerals, identify which is greater than or less than, and determine the greatest value.

**3-5:** Players roll dice and use the value to create the largest factor possible. The factors are combined to create the largest sum possible.

**5-6:** Players roll three or more dice and multiply using three or more factors. Players may also keep and use a two-digit number to create a factor.

**Clean up Checklist for Game Bag:**

High Roller directions sheets

High Roller Recording sheets

Dice

# High Roller Recording Sheet:

**Player 1**

High score for round 1 \_\_\_\_\_

High score for round 2 \_\_\_\_\_

Total \_\_\_\_\_

**Player 2**

High score for round 1 \_\_\_\_\_

High score for round 2 \_\_\_\_\_

Total \_\_\_\_\_

# High Roller Recording Sheet:

**Player 1**

High score for round 1 \_\_\_\_\_

High score for round 2 \_\_\_\_\_

Total \_\_\_\_\_

**Player 2**

High score for round 1 \_\_\_\_\_

High score for round 2 \_\_\_\_\_

Total \_\_\_\_\_

**Player 3**

High score for round 1 \_\_\_\_\_

High score for round 2 \_\_\_\_\_

Total \_\_\_\_\_

**Player 4**

High score for round 1 \_\_\_\_\_

High score for round 2 \_\_\_\_\_

Total \_\_\_\_\_