



# Pig Doubled

**Math Concepts:** Addition of 1 through 6 to double-digit numbers

**Materials:** 2 Dice, pencil and paper

**Players:** 2 to 6

**Set up:** Create small groups of two to six students. Give each group two dice and a piece of paper to keep score. Set up an order for the students to play in.

**Play:** During a turn, a student rolls two dice. Score the roll as follows:

- Exactly one of the dice is a 1. Their turn is over and they lose all points accumulated so far on this turn.
- They roll a pair of 1's. They add a bonus of 25 to their running total.
- They roll doubles other than a pair of 1's. They add twice the sum of the dice to their running total.
- They roll anything else. The sum of the dice is added to their running total.

If they did not roll a single 1, they can roll again and risk potentially losing all their points, or they can choose to end their turn and add this turn's total to their grand total.

**Goal:** The first player to accumulate 150 points wins.

## – DISCUSSION AND TIPS –

Discuss the students' strategies. Do they have a fixed point limit for when they should stop, or do they stop when it feels right? Do they roll a fixed number of times and then stop? How do the scores of the other players in their game change their strategy?

Run a classroom experiment where one half of the class uses one strategy and the other half another strategy. Is one strategy clearly better than the other?

## – VARIATIONS –

**Target Total:** Change the winning total from 50 to 100, or any other total that fits ability and time constraints.

**Multiplication Rules:** Multiply the result of rolling two dice. If the product is odd, all of this turn's points are lost. Otherwise, the product is added to this turn's running total and the player has the option of rolling again. For this game, use a larger winning total such as 250 or 500.

