

Horseshoes

Topics: Arithmetic (+, -, x, ÷), estimation, comparisons.

Materials: Card deck, pencil and paper, white board/document camera.

Horseshoes is a simple game with almost limitless potential. It's fun, quick, and can lead to differentiated practice, creative math practice, and also seed interesting conversations about math patterns.

How to Play

Horseshoes can be played with the whole class, or in small groups. Remove all face cards and tens from a deck of cards, so the only cards are from 1 to 9. The teacher/leader picks out two cards, forms a two digit number with them, and writes it on the board. This is the *target number*. Then the leader picks four more cards and writes those digits on the board.

The goal of the game is to create an equation using only the four digits that were drawn that equals an amount as close as possible to the target. Whoever is closest to the target wins that round. It doesn't matter whether someone goes over or under.

Example Game

The leader draws a 3 and a 7, and writes the target number 37 on the board. Then the leader draws the four digits 2, 4, 4, and 9. After all the digits are written on the board, there are three minutes of quiet, where everyone writes their attempts and equations down on their own paper.

When the three minutes are up, the leader calls on people who say what they got, and how they got it.

Student 1: I got 43, by taking $49 - 4 - 2$.

Student 2: I got 38. I took 9×4 to make 36, then added 4 and subtracted 2 to get 38.

Student 3: I got 37 exactly! I did $44 - 9 + 2$.

Variations

By taking different targets, we can encourage different kinds of arithmetic practice. For example:

Four digit Horseshoes: Pick a 4-digit number as the target. This forces multiplication.

Fraction Horseshoes: Arrange the target as a fraction (i.e., $3/7$ instead of 37).

