

## Deci-Trails

**Aim:** To convert from fractions to percentages to decimals

**Materials:** Transparent coloured counters, one playing board, calculator.

**Rules:** Deci-trails is a game for two players.

To start the game place one counter at the top of each of columns labeled tenths and hundredths.

Play begins at the starting number of the trail. The object of the game is to add or subtract tenths, or hundredths, until the number in the next target circle is reached. The symbol on the path will tell whether players can add or subtract.

Players take turns to move either counter in the tenths, or hundredths column to a new number. This gives the number of tenths or hundredths that are added or taken away from the running total. So if player one starts with zero and moves the tenths counter to 4 then the total will be 0.4 ( $0 + 0.4$ ). Player two might respond by moving the hundredths counter to 2 so the score is now 0.42 ( $0.4 + 0.02$ ). Play continues like that until the number in the next circle is reached by a player. They capture a point for this.

The calculator can be used to track the score with each turn. Each time play on a path begins with the number in the last target circle reached and aims at the number in the next circle. Play continues like this with players adding or subtracting tenths or hundredths as above.

If a player "misses" the target number then the other player gets a point. When the finish number is captured play ends. The player with the most points wins.

**Extension:** The game can be extended to include thousandths (see gameboards provided)







