

Three-In-A-Row

This is a 2- or 3-player game. You will need color counters (different color for each player), game board, and calculator

Players take turn to pick one number from Box A and one from Box B.

On your turn, announces your choice of numbers. Then, and only then, you may use the calculator to find the product. Find the number on the game board and place one of your counters there.

Your goal is to be the first one to make “three-in-a-row,” horizontally, vertically, or diagonally.

Discussion, Suggestions, Possible Solutions

Box A	Box B
18, 23, 35, 47, 79, 91	2, 3, 5, 7, 8, 9

158	637	184	141	728	90
144	69	329	175	46	162
819	395	36	161	237	280
553	94	423	315	115	273
54	711	235	632	126	70
455	376	105	182	207	245

Being able to estimate and mentally multiply a 2-digit number by a 1-digit number is an important pre-requisite skill for

dividing a whole number by a 2-digit number. Helping students develop their mental computation or estimation ability in general is also an important focus of Grade 4 GPS. Therefore, you may want to create your own game boards. Eventually, you may want to challenge your students with game boards that may contain simple 3-digit numbers (e.g. numbers ending with a 0 or numbers like 301) in Box A or multiples of 10 (i.e., 10, 20, ... 90) in Box B.

*As students play this game, it is important to remind them that they can use the calculator **only after** they announce their choices of numbers from Boxes A and B. Remember that we want students to estimate and/or mentally multiply a 2-digit number by a 1-digit number.*

This game may be left available for students to play on their own times. However, it is important for students to share some of the strategies they develop as they play more. Strategies may include:

- *pay attention to digits in ones place (both factors and product)*
- *estimate by rounding the numbers in Box A*
- *multiplying tens first then ones (for example, $47 \times 7 = 40 \times 7 + 7 \times 7 = 280 + 49 = 329$)*
- *etc.*