

Game On! Increase Number Sense and Problem Solving with Coding
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Games to Work on Counting & Number Sense

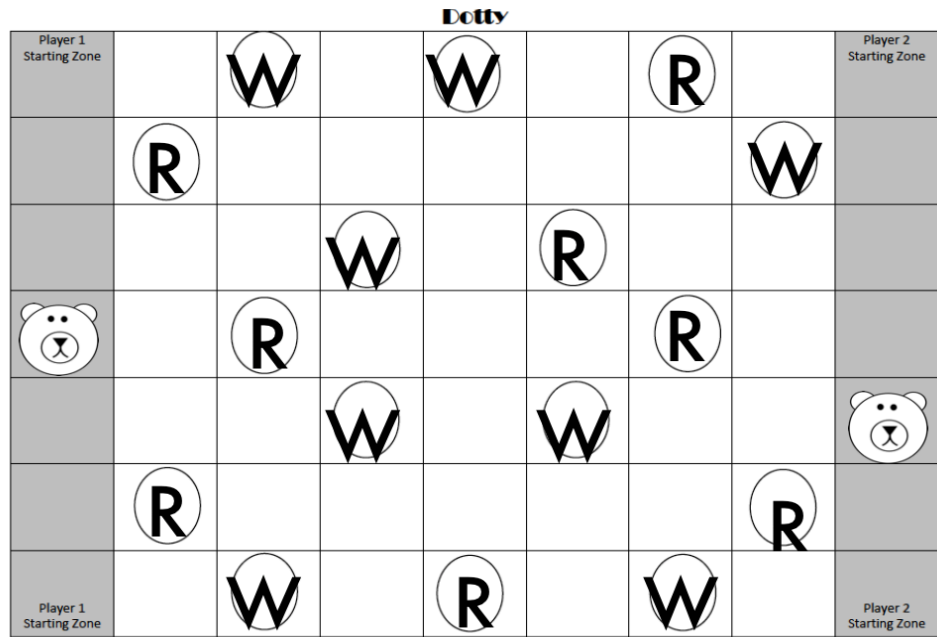
DOTTY

Materials

- 1 game board
- 1 1,2,3 number cube
- 2 Bears
- 16 counters (8 of 2 colors, or 16 of one color)

Directions

1. Roll the dice & move that many squares.
2. Try and fill your starting zone first.



Light Bright

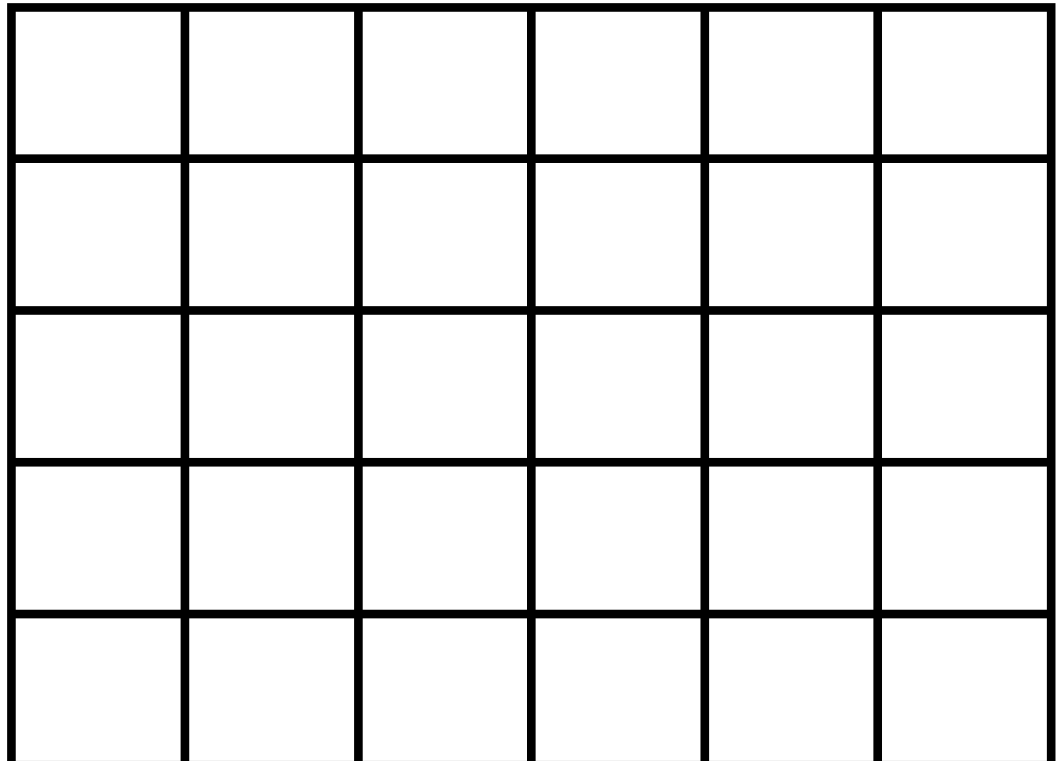
Materials

- 1 game board
- 1 1,2,3 number cube
- 1 game piece
- 1 starting mark
- 6 counters (1 of each color)
- Coding Arrows

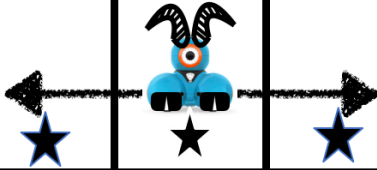

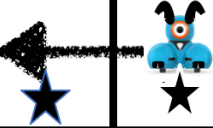
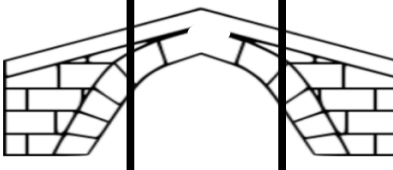

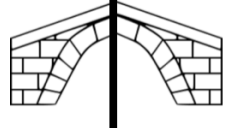
Directions

1. Roll the dice.
2. Create a program.
3. Run the program.
4. Say LIGHT BRIGHT-if you collect a tile for your team.

Work as a team to capture all 6 tiles-STAND UP and YELL-LIGHT BRIGHT!



Troll Loves 10

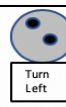
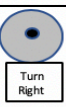
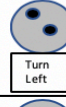
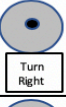
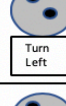

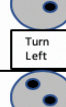
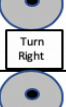
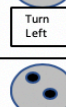

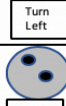
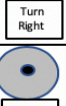
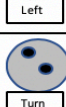

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|--|---|---|---|---|---|--|---|
|  | | |  | | |  | |
| 5 | 6 | 7 | 3 | 9 | 5 | 9 | 7 |
| 2 | | 3 | 6 | | 4 | | |
| 3 | | 1 | 5 | | 1 | 3 | 4 |
|  | | |  | | |  | |

Must use 3 numbers to make 10.


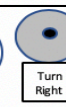
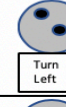
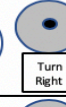

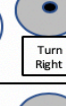
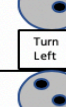
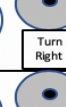
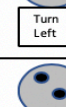

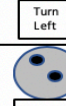
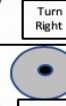


Can use 2 or 3 numbers to make 10.

Must use 2 numbers to make 10.


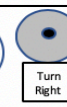
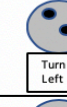
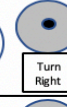

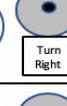
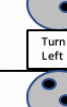
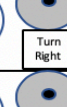

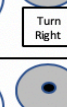
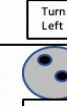
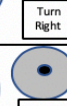


10 =

| | | |
|---|---------|---|
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |

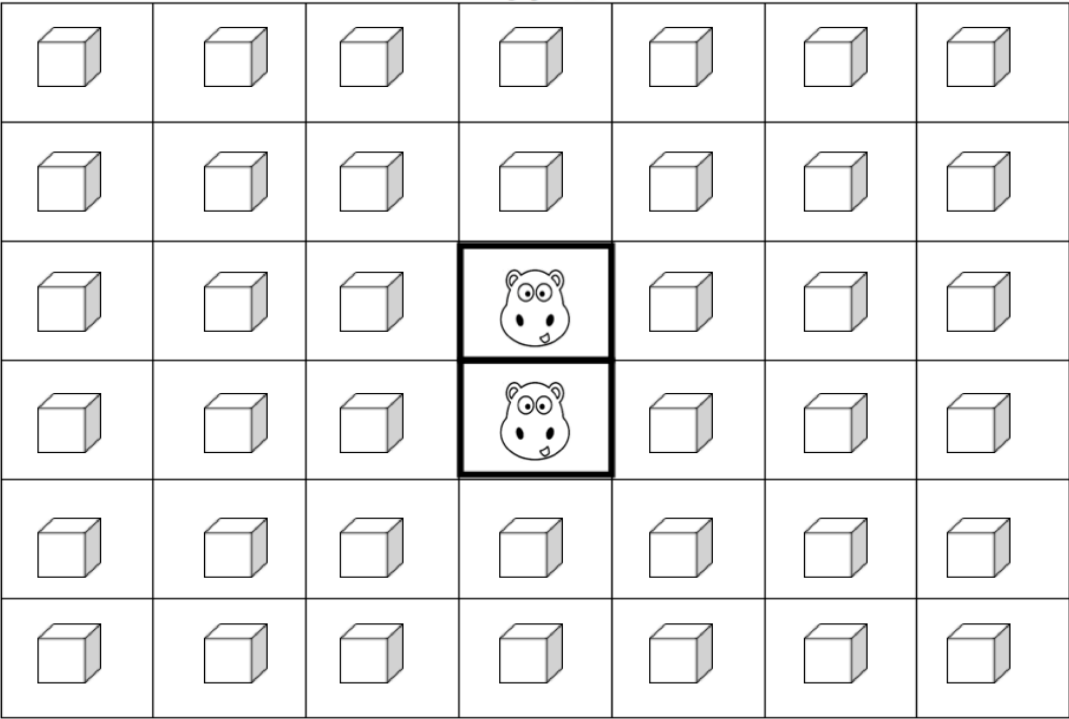
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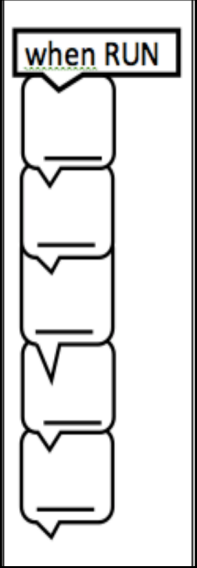
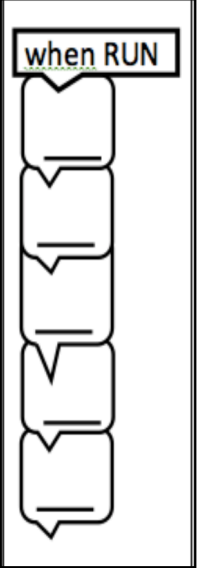


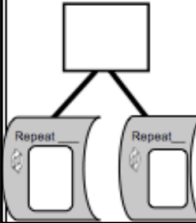
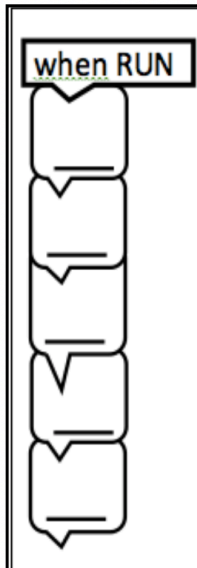
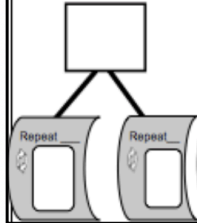

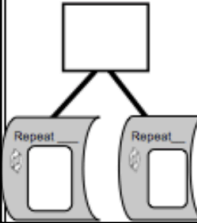
| | | |
|---|---------|---|
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |

10 =

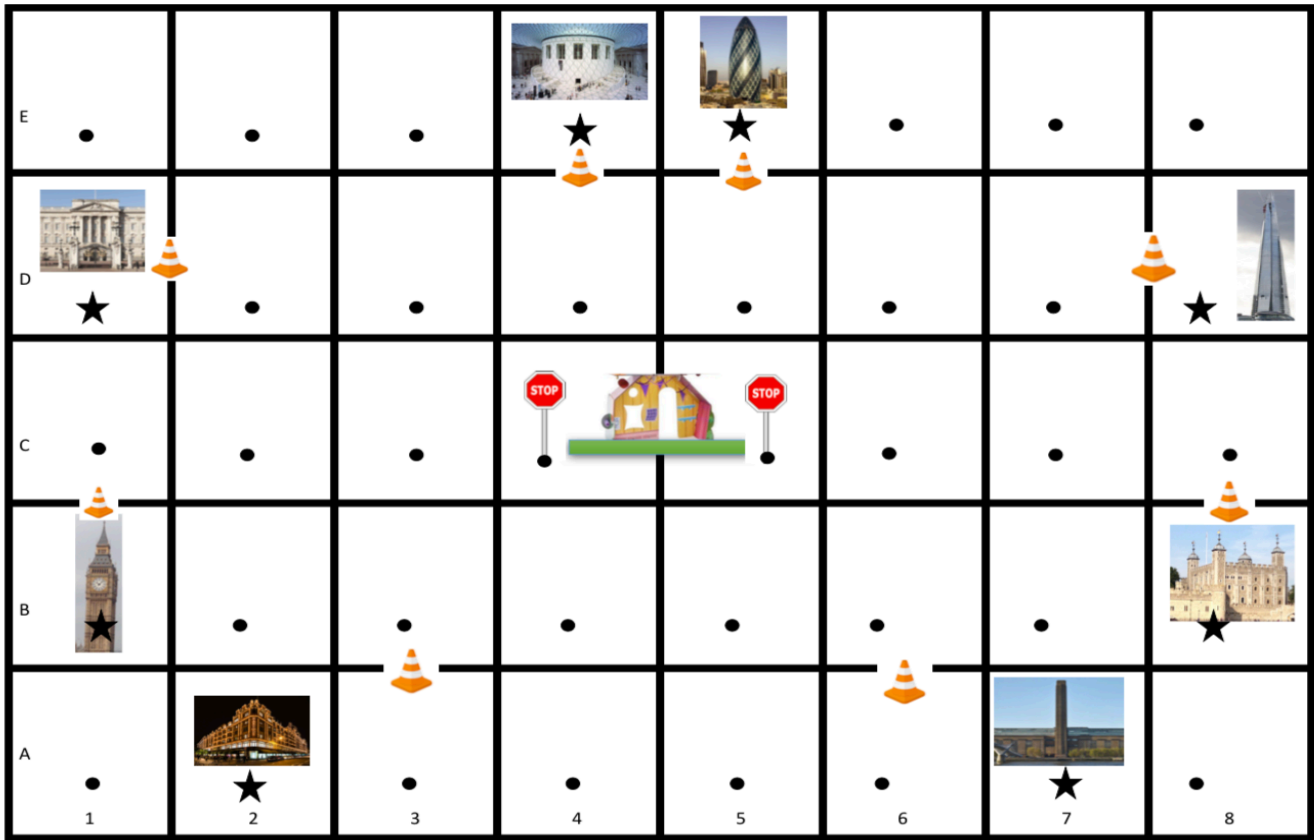
| | | |
|---|---------|---|
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |
|  | FORWARD |  |
| Turn Left | | Turn Right |

Game to Work on Decomposing Numbers & Writing Loops

| HUNGRY HIPPOS | |
|--|---|
| <p>Materials</p> <p>1 number cube 2 Hippo counters Counters</p> | <p>Hungry Hippo</p>  |
| <p>Directions</p> <p>Roll the dice. Only move if you can get counters.</p> <p>IF-you roll 2,3,4,5 THEN-create a program where your hippo <u>only moves 2 directions</u></p> <p>IF-you roll 0 THEN-roll again</p> <p>IF- you roll 1 THEN-move to an open spot.</p> | |

| <u>Recording Programs Each Step</u> | <u>Recording Programs with Loops</u> |
|--|---|
| <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <p style="text-align: center; border: 1px solid black; display: inline-block;">when RUN</p>  </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <p style="text-align: center; border: 1px solid black; display: inline-block;">when RUN</p>  </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <p style="text-align: center; border: 1px solid black; display: inline-block;">when RUN</p>  </div> </div> | <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <p style="text-align: center; border: 1px solid black; display: inline-block;">when RUN</p>  <div style="text-align: center; margin-top: 20px;">  </div> </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <p style="text-align: center; border: 1px solid black; display: inline-block;">when RUN</p>  <div style="text-align: center; margin-top: 20px;">  </div> </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <p style="text-align: center; border: 1px solid black; display: inline-block;">when RUN</p>  <div style="text-align: center; margin-top: 20px;">  </div> </div> </div> |

Just in Time Tax Service-Using Loops and Connecting to Addition/Multiplication



| | | | |
|---|--|---|---|
| <pre> When Start Forward 30 normal Turn Left 90 Repeat 3 times Forward 30 normal </pre> | <pre> When Start Repeat 2 times Forward 30 normal Turn Left 90 Repeat 2 times Forward 30 normal </pre> | <pre> When Start Forward 30 normal Turn Right 90 Repeat 3 times Forward 30 normal </pre> | <pre> When Start Repeat 2 times Forward 30 normal Turn Right 90 Repeat 2 times Forward 30 normal </pre> |
| <pre> When Start Repeat 3 times Forward 30 normal Turn Left 90 Repeat 2 times Forward 30 normal Turn Left 90 Forward 30 normal </pre> | <pre> When Start Repeat 3 times Forward 30 normal Turn Left 90 Forward 30 normal </pre> | <pre> When Start Forward 30 normal Turn Right 90 Repeat 2 times Forward 30 normal Turn Right 90 Repeat 3 times Forward 30 normal </pre> | <pre> When Start Repeat 3 times Forward 30 normal Turn Right 90 Forward 30 normal </pre> |