












## Numeracy Kit QR Codes

The following QR codes will link directly to the task cards that you can pull up on phones or tablets	
<p style="text-align: center;"><b>The Four 4's</b></p> <p>Can you find every number between 1 and 20 using only four 4's and any operation?</p>	
<p style="text-align: center;"><b>Yohaku</b></p> <p>Yohaku is a puzzle game played on a square array grid. The game revolves around a single operation (usually addition or multiplication). This operation dictates the relationship between the numbers placed in the cells. The puzzle is solved when all conditions are satisfied simultaneously.</p>	
<p style="text-align: center;"><b>Sweet 16</b></p> <p>The numbers from one to sixteen (inclusive) must be placed in the cells of the four-by-four grid, you may not use negative numbers and you may only use each number once.</p> <p>Two cells are connected if an operation is placed in the space between them. A series of these operations create equality relationships that must all be satisfied. Note that if an operation does not exist in the space between two cells, there is no relationship between those two numbers. It is possible to have a number that has no relationships to any of its neighbours.</p>	
<p style="text-align: center;"><b>Sum of 51</b></p> <p>How many 6 digit numbers are there whose digits sum to 51?</p>	
<p style="text-align: center;"><b>Same Sum</b></p> <p>Problem: You have three cards in front of you. On the back of each of the cards is a different prime number. The sum of the number on the front and the number on the back is the same for each card.</p> <p>-What are the prime numbers on the back of the cards?</p>	

<p style="text-align: center;"><b>Order of Operations Menu Task</b></p> <p>Build as few numbers as possible to satisfy each constraint at least once.</p> <p>Which constraints pair nicely? Which constraints cannot be paired? Is it possible to solve in 2, 3, or 4 numbers?</p>	
<p style="text-align: center;"><b>Number and Operations Menu Task</b></p> <p>Build as few numbers as possible to satisfy each constraint at least once.</p> <p>Which constraints pair nicely? Which constraints cannot be paired? Is it possible to solve in 2, 3, or 4 numbers?</p>	
<p style="text-align: center;"><b>Make 100</b></p> <p><b>Task:</b> Given the digits 1-9, make 100 using standard operators. Use each number only once.</p>	
<p style="text-align: center;"><b>Kenken</b></p> <p><u>Task Instructions:</u> Your goal is to fill in the grid with the numbers 1 - 3 so that no number is repeated in any row or column. The heavily outline areas contain a target number and math operation that you must use.</p>	
<p style="text-align: center;"><b>Integer Solitaire</b></p> <p>Integer solitaire can be played alone or in pairs. Students are dealt 18 playing cards at random. The object of the game is to place a card in every space on the board so that all equalities are true. Because the cards are not in fixed positions, students are not committed to the equalities they create and can rearrange them as needed.</p>	
<p style="text-align: center;"><b>Frame the Cards</b></p> <p>Problem: Arrange the cards from the ace to the ten into a picture frame so that each the top, bottom, and sides add to the same total of spots (hearts/diamonds...) Right now, the top row adds to 23, the bottom adds to 12, the left side is 22 and the right side is 22. These four numbers should be the same. Apparently, there are 10 solutions to this problem.</p>	

### Fifteen

Task: Using the numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9

Alternate between partners to pick one number at a time. Once a number is picked, it is gone. The goal is to have 3 numbers that add to 15.



### Chessboard

How many squares on a chessboard? How many rectangles?



### Characteristics of Numbers

Build as few numbers as possible to satisfy each constraint at least once.

Which constraints pair nicely?

Which constraints cannot be paired?

Is it possible to solve in 2, 3, or 4 numbers?



### 31-derful

Goal: you need to create a 5 x 5 grid (25 cards) in which the rows and columns of cards all have a sum of 31.




To Win: Each row and column need to add up to exactly 31.



### 30 Scratch

Problem: Roll a die to choose 4 digits from 2-9 e.g. 3 5 7 9 Use these digits in combination with any operation to make the numbers 1-30.



<p style="text-align: center;"><b>9 Hole Golf Course</b></p> <p>Prince George is getting a new 9-hole golf course, which is going to be built on a treed lot just outside of town. Your task is to come up with a layout for the golf course.</p>	
<p style="text-align: center;"><b>Tricky 24</b></p> <p>Can you find a solution to all 24 problems?</p> <p>For each problem:</p> <ul style="list-style-type: none"><li>• You MUST use ALL the numbers 1,2,3 and 4.</li><li>• You may NOT repeat the 1,2,3 or 4.</li><li>• The numbers 1,2,3, and 4 do NOT need to be in consecutive order.</li><li>• You may use addition, subtraction, multiplication or division as many times as you would like.</li><li>• Parenthesis, Exponents, Square roots, and Fraction bars ARE allowed.</li></ul>	
<p style="text-align: center;"><b>Two Bike Race</b></p> <p>You have entered a two-bike race from UNBC to Otway through the Greenway trail system of Cranbrook Hill. The race will require that you pick your own route from START to FINISH, and that you race on both roads and trails. As such, you must have two bikes for the race – a road bike and a mountain bike. However, you have no race support, so you will have to pick the bike you want to start with, and then leave your second bike at a checkpoint somewhere on your chosen race route.</p>	
<p style="text-align: center;"><b>Winter Olympics</b></p> <p>Traditionally the final standings to determine the winning country at the Olympics are determined by the total number of medals won by each country. Many countries believe that this is not a FAIR system and believe that a better way should be developed. Please decide on a NEW strategy for ranking the following countries from 1 – 12, with 1 being the best.</p>	