


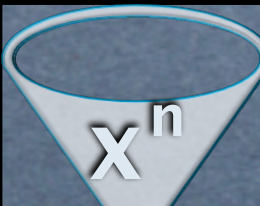


MathWorks Kids Game

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Story #1

- As a Kid learning mathematics,
- I want to be able to identify perfect numbers
- So that I can understand what perfects are.

Acceptance Criteria

☐ #1

- ☐ Given numbers 1, 2, 3, 4, 5, 6, 10 and 28
- ☐ When using Perfect filter and emptying contents of the source bucket to target bucket
- ☐ Then target bucket should contain 6 and 28.

☐ #2

- ☐ Given numbers -2, -1, 0, and 6
- ☐ When using Perfect filter and emptying contents of the source bucket to target bucket
- ☐ Then target bucket should contain 6.

Story #2

- As a Kid learning mathematics,
- I want to be able to identify even numbers
- So that I can grow my understanding of even numbers.

Acceptance Criteria

☐ #1

- ☐ Given numbers 1, 2, 3, and 4
- ☐ When using the even filter and emptying contents of the source bucket to target bucket
- ☐ Then target bucket should contain 2 and 4.

☐ #2


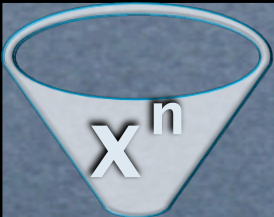
- ☐ Given numbers 1, 2 and -4
- ☐ When using the even filter and emptying contents of the source bucket to target bucket
- ☐ Then target bucket should contain 2 and -4.

Story #3

- As a Kid learning mathematics,
- I want to be able to identify even perfects
- So that I can understand numbers that are even and perfects at the same time.

Acceptance Criteria


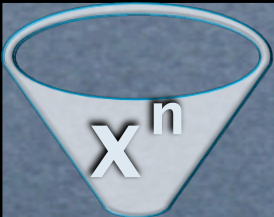
- ❑ Given numbers 1, 2, 3, 6, 8, 27 and 28
- ❑ When using the Even and Perfect filters and emptying contents of the source bucket to target bucket
- ❑ Then target bucket should contain 6 and 28.



Story #4

- ☐ As a Kid learning mathematics,
- ☐ I want to be able to sum all the numbers that are in the bucket.
- ☐ So that I can learn addition.



Acceptance Criteria

- ❑ Given numbers 5, 7, 10 and 5
- ❑ When using the aggregator and emptying contents of the source bucket to target bucket
- ❑ Then target bucket should contain 27.

Story #5

- As a Kid learning mathematics,
- I want to be able to identify numbers within a range
- So that I can grow my understanding of ranges.

Acceptance Criteria


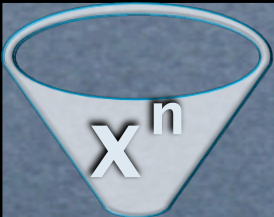
- ❑ Given there are numbers 5, 7, 10 and 15
- ❑ When using the range between 5..10 and emptying contents of the source bucket to target bucket
- ❑ Then target bucket should contain 5, 7 and 10.

Story #6

- As a Kid learning mathematics,
- I want to be able to sum all odd primes within a range.
- So that I can grow my understanding of numbers.

Acceptance Criteria

- ❑ Given numbers 1, 2, 5, 7, 8, 10 and 15
- ❑ When using the range 2..10 and emptying contents of the source bucket to target bucket
- ❑ Then target bucket should contain 12.



Story #7

- ❑ As a Kid learning mathematics,
- ❑ I want to be able to multiply all numbers in a bucket.
- ❑ So that I can grow my understanding of numbers.

Acceptance Criteria

- ❑ Given numbers 5, 7, 10 and 5
- ❑ When using the multiplier and emptying contents of the source bucket to target bucket
- ❑ Then target bucket should contain 1750.

Story #8

- As a Kid learning mathematics,
- I want to be able to multiply each number in the bucket by a factor.
- So that I can understand what scaling of numbers means.

Acceptance Criteria

- ❑ Given there are numbers 5, 7, 10 and 15
- ❑ When using the scaler of 10 and emptying contents of the source bucket to target bucket
- ❑ Then target bucket should contain 50, 70, 100 and 150.

Story #9

- ❑ As a Kid learning mathematics,
- ❑ I want to be able to square all numbers in the bucket.
- ❑ So that I can understand what squaring of numbers means.

Acceptance Criteria

- ❑ Given there are numbers 1, 2, 3 and 5
- ❑ When using the squarer and emptying contents of the source bucket to target bucket
- ❑ Then target bucket should contain 1, 4, 9 and 25.

Story #10

- As a Kid learning mathematics,
- I want to be able to find the first position of a given number.
- So that I can know where in sequence was the number was before entering the target bucket.

Acceptance Criteria

□ #1

- Given numbers 3, 1, 2, 1 and 5
- When finding for first occurrence of 2 and emptying contents of the source bucket to target bucket
- Then target bucket should contain the position 3.

□ #2

- Given numbers 3, 1, 2, 1 and 5
- When finding for the first occurrence of 10 and emptying contents of the source bucket to target bucket
- Then target bucket should be empty, indicated by -1.

Story #11

- As a Kid learning mathematics,
- I want to be able to tell the first position of a prime number.
- So that I can know where in sequence was that prime number before entering the target bucket.

Acceptance Criteria

□ #1

- Given numbers 10, 1, 5, 1 and 7
- When finding for first occurrence of prime and emptying contents of the source bucket to target bucket
- Then target bucket should contain the position 3.

□ #2

- Given numbers 10, 4, 8, 25 and 32
- When finding for the first occurrence of prime and emptying contents of the source bucket to target bucket
- Then target bucket should be empty, indicated by -1.

Story #12

- As a Kid learning mathematics,
- I want to be able to tell the positions of a given number.
- So that I can know where all in sequence the given number occurred before entering the target bucket.

Acceptance Criteria

□ #1

- Given there are numbers 3, 1, 2, 1, 8 and 5
- When using the sequencer for finding position of number 1 and emptying contents of the source bucket to target bucket
- Then target bucket should contain the positions as 2 and 4.

□ #2

- Given numbers 3, 1, 2, 1, 8 and 5
- When using the sequencer for finding position of number 555 and emptying contents of the source bucket to target bucket
- Then target bucket should be empty, indicating that the number was not found.

Story #13

- As a Kid learning mathematics,
- I want to be able to tell all the positions of all odd multiples of 5.
- So that I can know where all in sequence they were present before entering the target bucket.

Acceptance Criteria

□ #1

- Given there are numbers 3, 5, 2, 10, 35, 25 and 50
- When using the sequencer to find positions of odd multiples of 5 and emptying contents of the source bucket to target bucket
- Then target bucket should contain the position as 2, 5 and 6.

□ #2

- Given numbers 3, 1, 2, 1, 8 and 4
- When using the sequencer to find positions of odd multiples of 5 and emptying contents of the source bucket to target bucket
- Then target bucket should be empty, indicating that the number was not found.

Story #14

- As a Kid learning mathematics,
- I want to be able to tell if the bucket contains either any evens or multiples of 5
- So that I can say that there exists at least one even number or a multiple of 5 in the bucket.

Acceptance Criteria

□ #1

- Given there are numbers 3, 1, 2 and 7
- When using the any viewer and emptying the contents of the source bucket to target bucket
- Then target bucket should contain true

□ #2

- Given numbers 3, 1, 15 and 7
- When using the any viewer and emptying the contents of the source bucket to target bucket
- Then target bucket should contain true.

Acceptance Criteria

□ #3

- Given there are numbers 3, 1, 7 and 19
- When using the any viewer and emptying the contents of the source bucket to target bucket
- Then target bucket should contain false

Story #15

- ❑ As a Kid learning mathematics,
- ❑ I want to be able to remove duplicate numbers.
- ❑ So that I can understand what a set of numbers means.

Acceptance Criteria

- ❑ Given there are numbers 1, 2, 2, 1 and 5
- ❑ When using the duplicate remover and emptying contents of the source bucket to target bucket
- ❑ Then target bucket should contain 1, 2 and 5.