

Welcome to the Clyde Hill Math Challenge 2024!

Brought to you by the Clyde Hill PTA!

Submit by Feb 9, 2024!

Why a Math Challenge?

We believe:

- math is for everyone!
- math is fun!
- puzzles build math muscles!

How does the Math Challenge work?

This packet contains 6 math challenges that focus on different skills. You can do as many or as few as you like. Even if you don't find the solution - that's ok! Our growth mindset lets us try our best and improve in steps. Trying is our first step! Our goal is to encourage participation, learn and have fun!

Within each grade, the class with the most participation wins Beast Academy puzzle books for their class!

How do I participate?

You have two ways of submitting your entry **by February 9, 2024**:

1. You may scan/take a photo of your entry and email it to math-challenge@clydehillpta.org
2. You may drop your entry off at a mailbox in the front office

Your entry must contain:

- Your name, grade and teacher (We need to know who you are!)
- Your work on at least one of the challenges. (To participate, you only have to try!)

Thank you!

Thank you to Beast Academy (<https://beastacademy.com/>) for sponsoring our Math Challenge this year! The class in each grade that has the most participation in the Math Challenge wins a book of Beast Academy puzzles for their class!

Many, many thanks to our language translators for bringing you the Math Challenge in multiple languages!

If you would like the challenge translated into another language, please email us at math-challenge@clydehillpta.org.

Have fun mathing!

Clyde Hill PTA

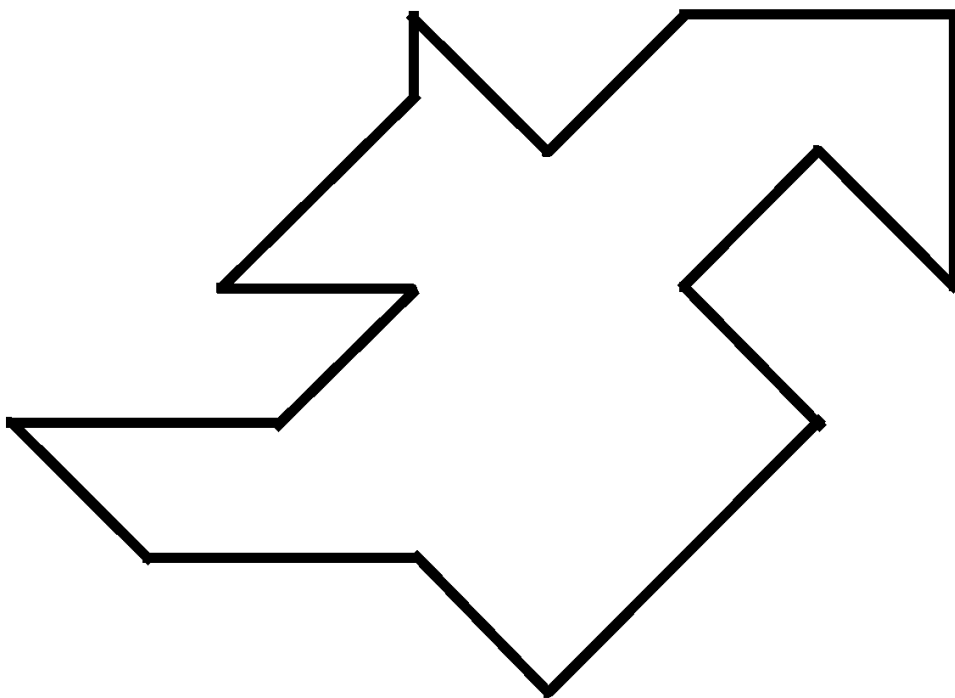
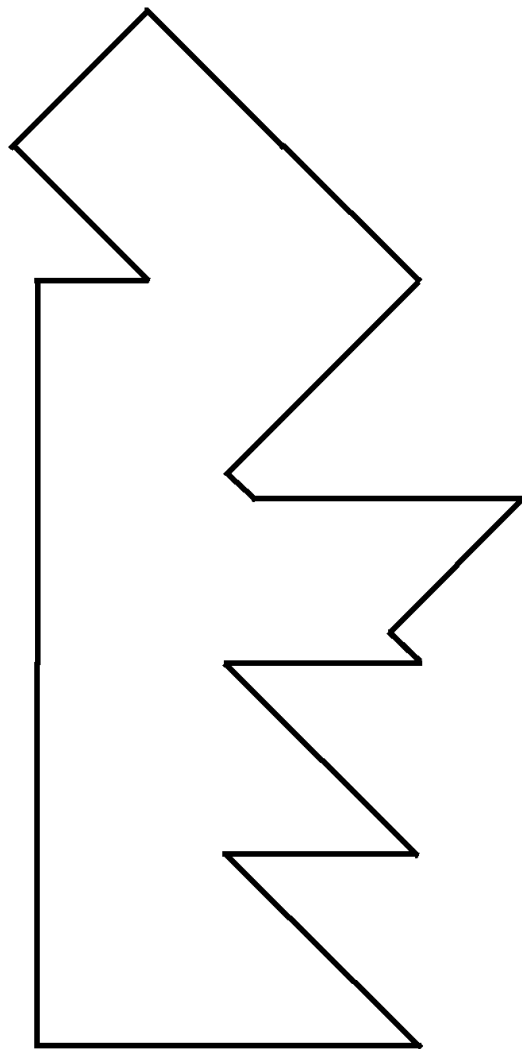
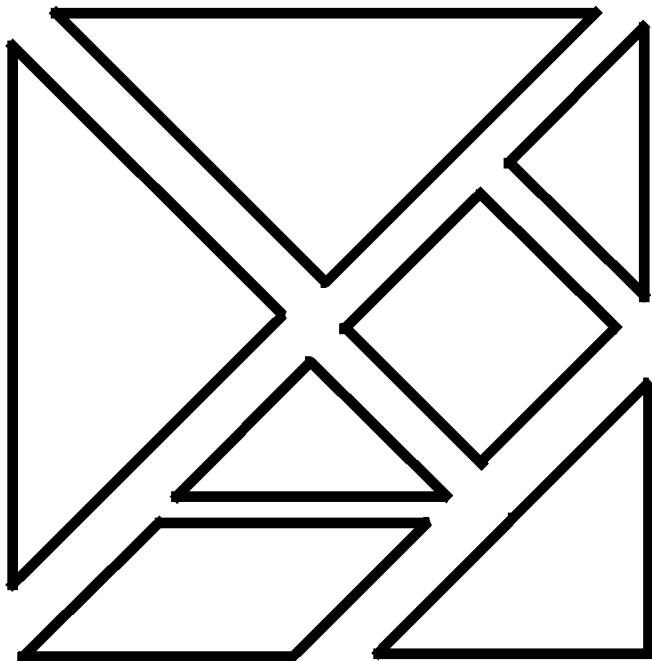
math-challenge@clydehillpta.org

Name: _____

Grade: _____ Teacher: _____

Tangrams

Use the 7 polygons from the square to create the dragon shapes below.



Find more Tangram puzzles in [Beast Academy 3D](#) and [online printables](#).

Name: _____

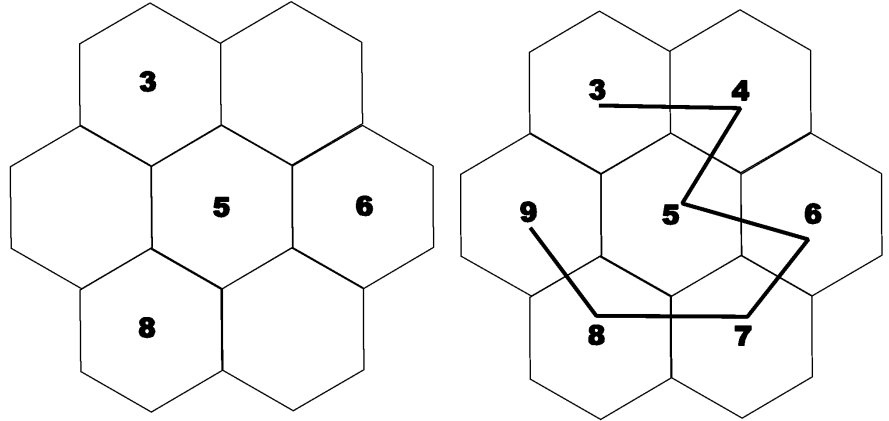
Grade: _____

Teacher: _____

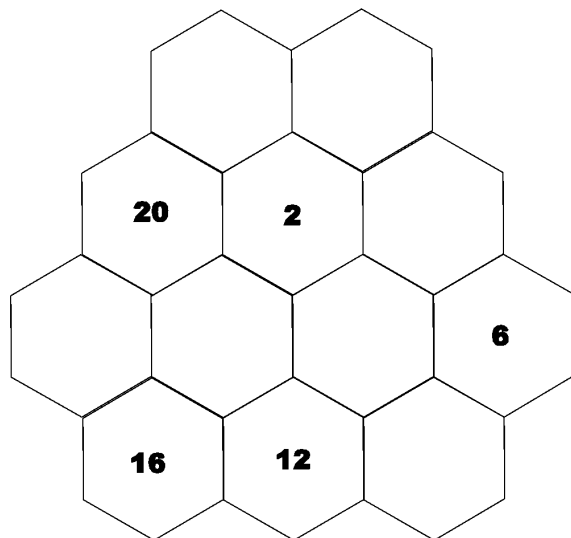
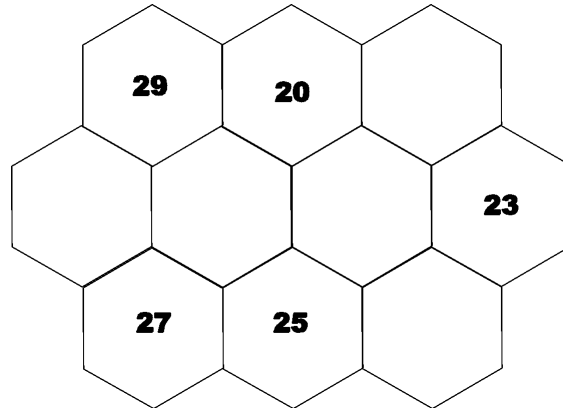
Hexagram Paths

Fill in the missing numbers and trace a path through the hexagrams that goes through each hexagram exactly once in the order of the numbers from smallest to largest.

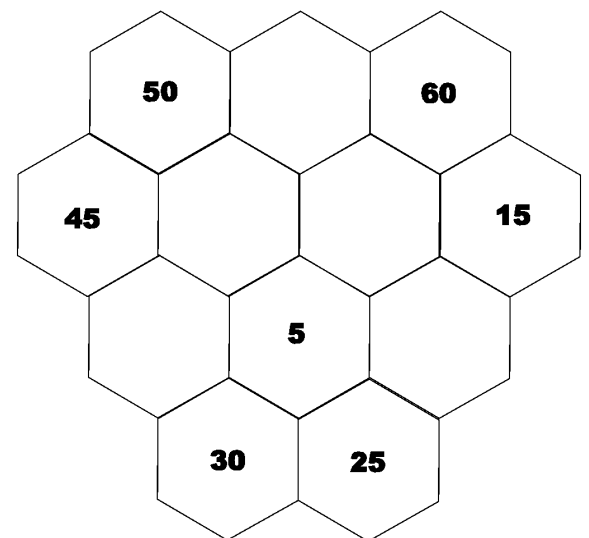
Example: Use the numbers 3 - 9.



Use the numbers 20 - 29



Use the even numbers 2 - 24.



Skip count by 5s from 5 to 60.

Find more path puzzles in Beast Academy 1A, 2A and online printables.

Name: _____

Grade: _____ Teacher: _____

Sum Blobs

Find blobs of squares where the sum of the numbers in the squares equals the target number. Each square within a blob must share a side with at least one other square in the blob. Each square is in a blob and is only in that one blob.

Example: Find blobs of squares where their sum is 10.

10

1	9	5
3	2	2
7	8	3

10

1	9	5
3	2	2
7	8	3

10

1	2	2	3	2
9	2	6	4	3
3	1	2	8	1
7	5	8	2	8
5	5	3	7	1

100

20	33	43	13	59
45	24	75	25	28
35	37	13	22	31
50	13	34	44	19
45	27	28	21	16

24

5	5	5	5	8	6	10
4	3	3	3	6	3	7
3	3	3	8	8	8	2
4	4	2	2	2	2	4
4	4	14	5	5	12	6
4	4	5	20	4	8	6
5	5	9	12	12	8	8

Find more sum blob puzzles in Beast Academy 2A and Puzzles 2.

Name: _____

Grade: _____

Teacher: _____

Find the Factors

Fill in the missing factors. Each row and each column contain 2 numbers. A number is used in a puzzle only once. The rest of the squares remain blank. The product of the two numbers in each row should be the number to the left of the row. The product of the two numbers in each column should be the number in the top of the column.

Example. Use the numbers 1 - 6.

	20		18			20		18
						4	1	
15						5		3
12							2	6
	48		6		4			

Use the numbers 1 - 8.

12					
15					
32					

	20	12	6	40	
10					
24					
28					
10					

Use the numbers 1 - 10.

	30		16	66	63	48
4						
27						
24						
30						
56						

Use the numbers 1 - 12.

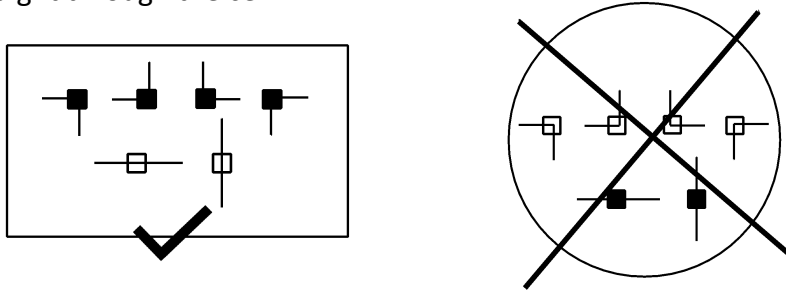
Find more factor puzzles in Beast Academy 4B and Puzzles 3 (Times Out).

Name: _____

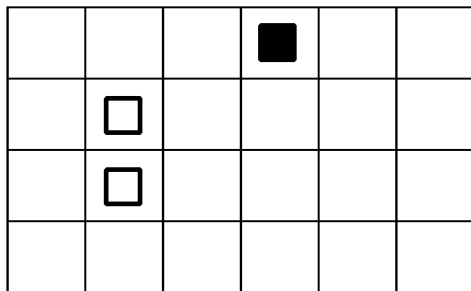
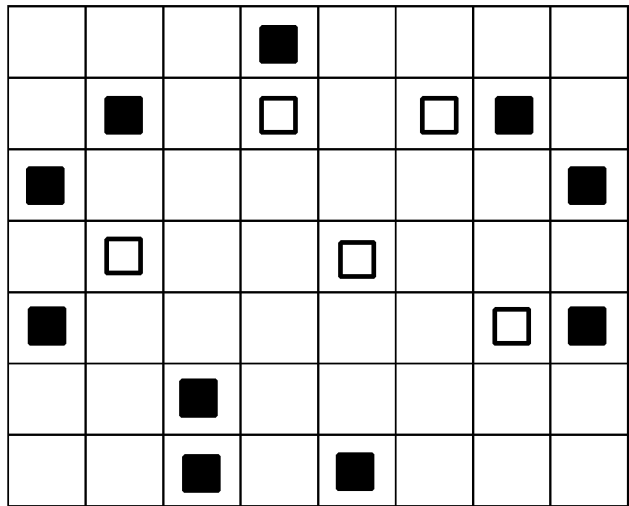
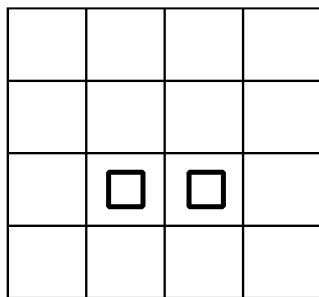
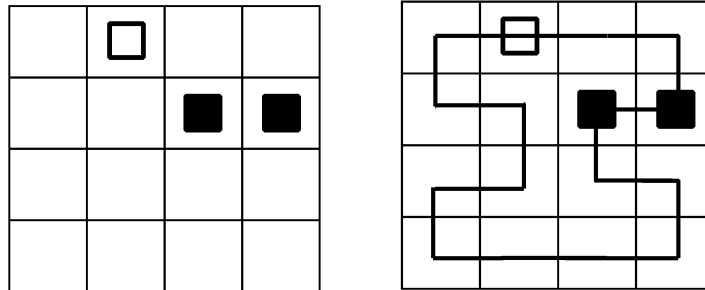
Grade: _____ Teacher: _____

Dutch Loops

Find a path that goes through each cell in the grid exactly once. The path can only move horizontally or vertically, not diagonally. It must move straight through a cell or turn at a right angle through a cell. If a cell has a solid square in it, the path must make a turn through that cell. If a cell has an outline of a square in it, the path must go straight through the cell.



Example:



Find more Dutch Loop puzzles in *Beast Academy Puzzles 4*.

Name: _____

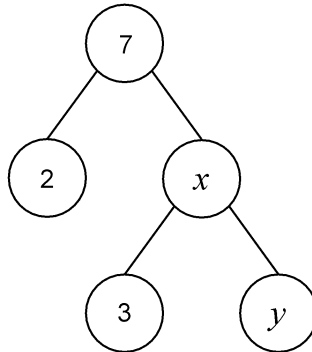
Grade: _____

Teacher: _____

Circle Sums

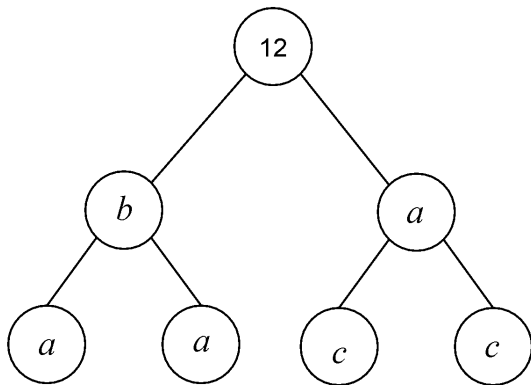
Each circle is the sum of the two circles connected to it below. Each letter represents a single number. Blank circles can be any number. Use the clues to determine what number each letter represents.

Example: Find x and y .

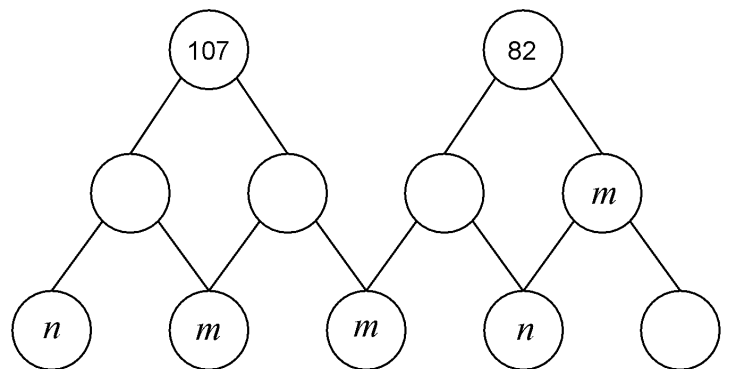


$$x = 5$$

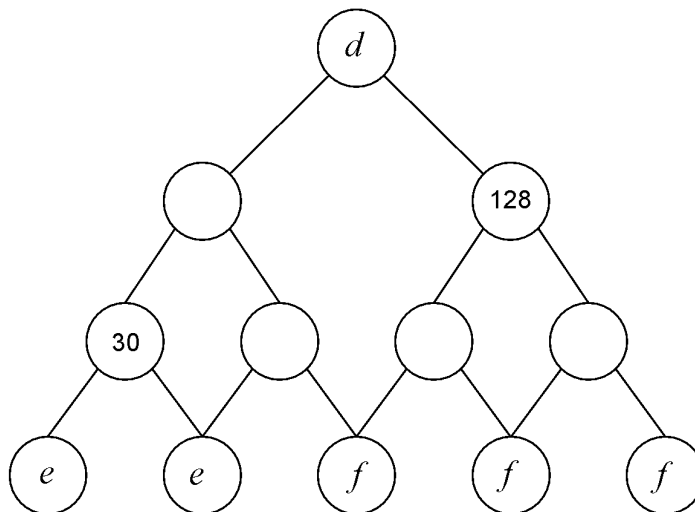
$$y = 2$$



$$a = \underline{\quad} \quad b = \underline{\quad} \quad c = \underline{\quad}$$



$$m = \underline{\quad} \quad n = \underline{\quad}$$



$$d = \underline{\quad} \quad e = \underline{\quad} \quad f = \underline{\quad}$$

Find more Circle Sum puzzles in Beast Academy 3C, 5A and Puzzles 3.