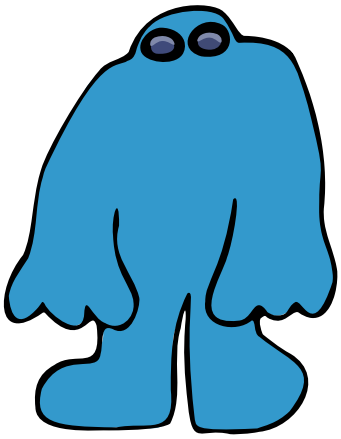
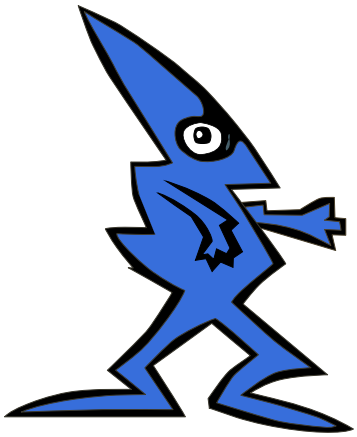


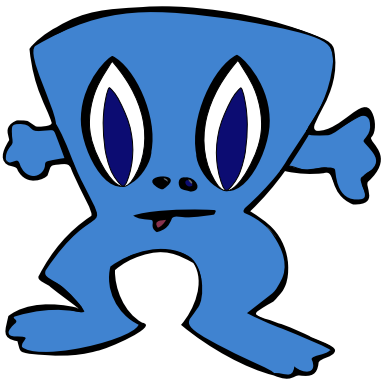
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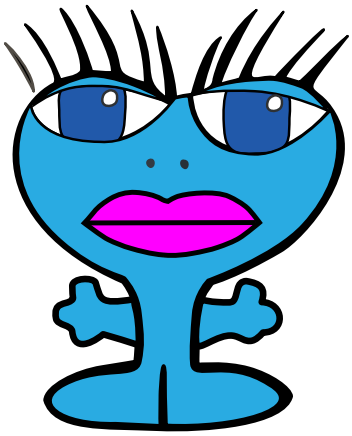
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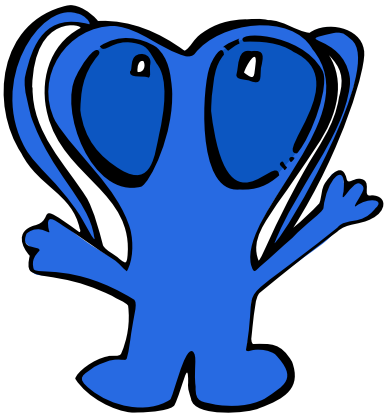
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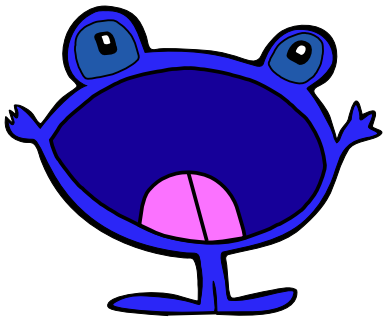
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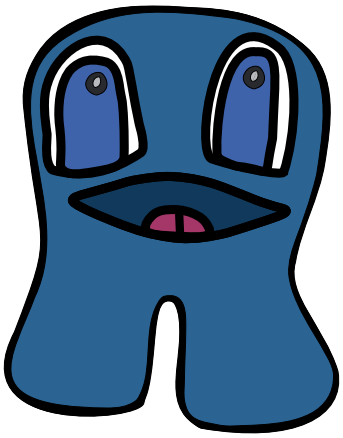
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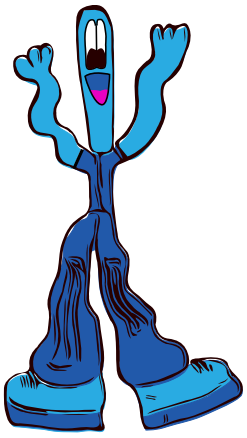
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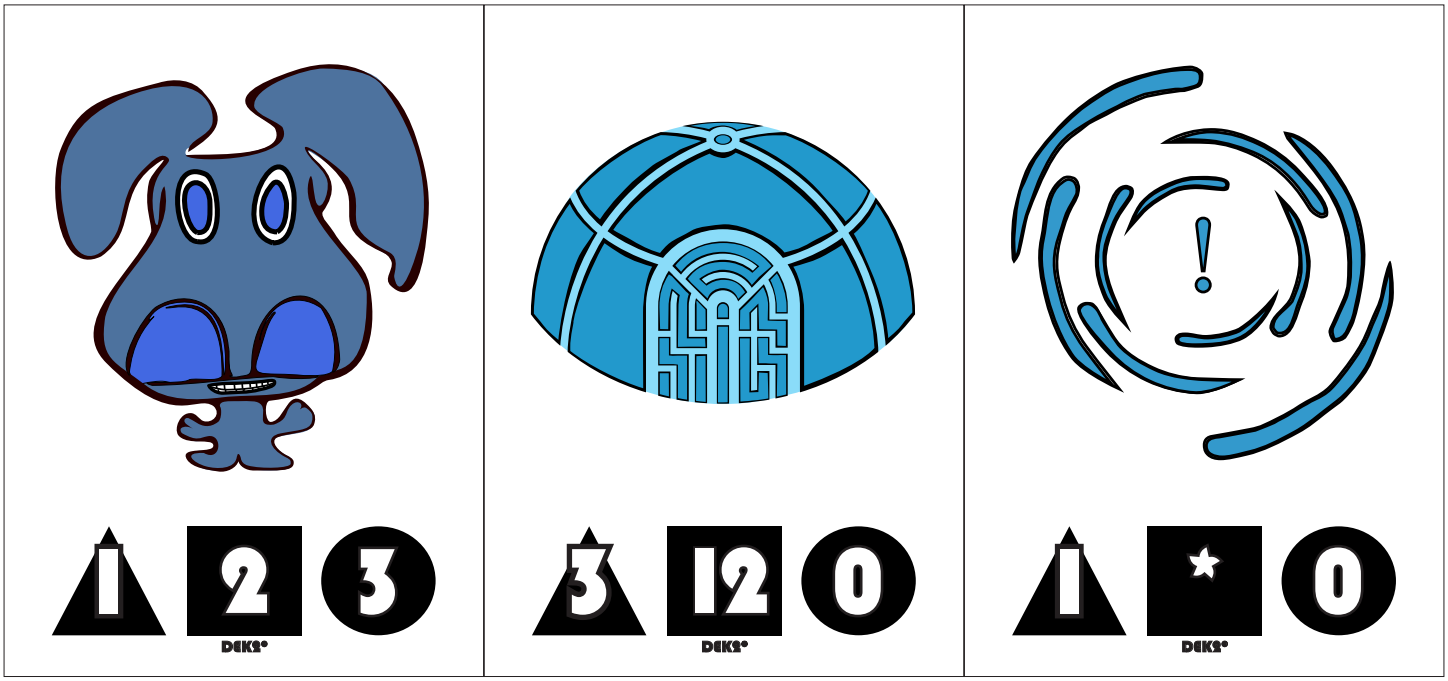
1 5 1

DEKA



1 3 2

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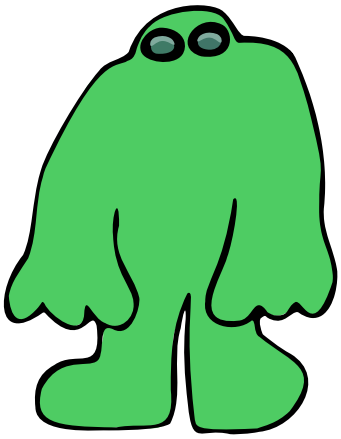
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2	6	1	48	
2	4	1	32	
1	3	2	12	
3	9	2	108	
1	2	3	8	
3	10	3	120	

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
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12	12	24	36	48	60	72	84	96	108	120	132	144



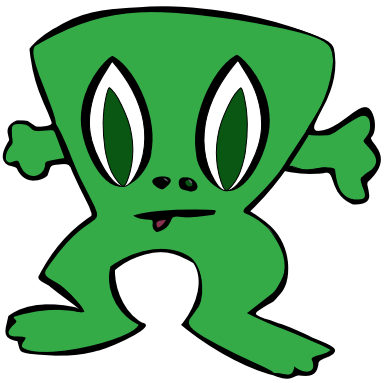
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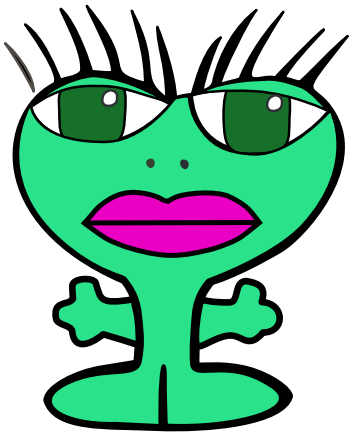
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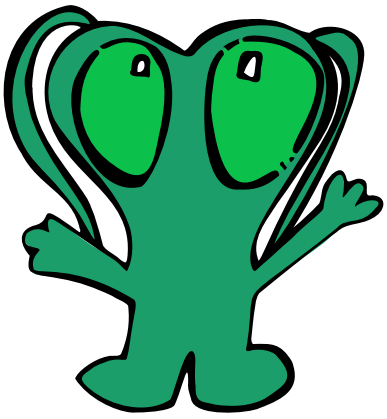
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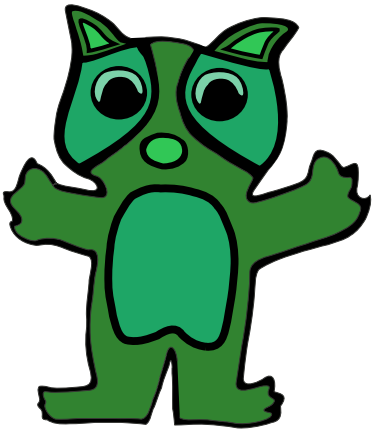
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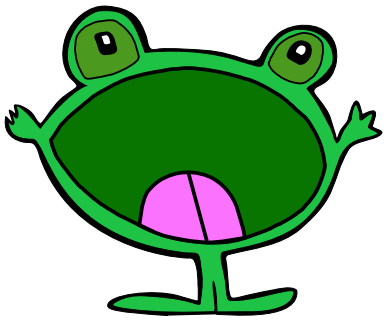
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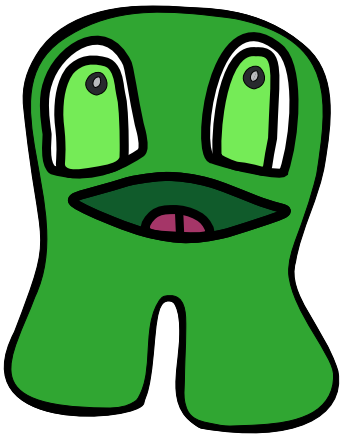
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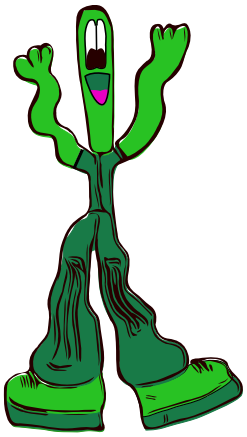
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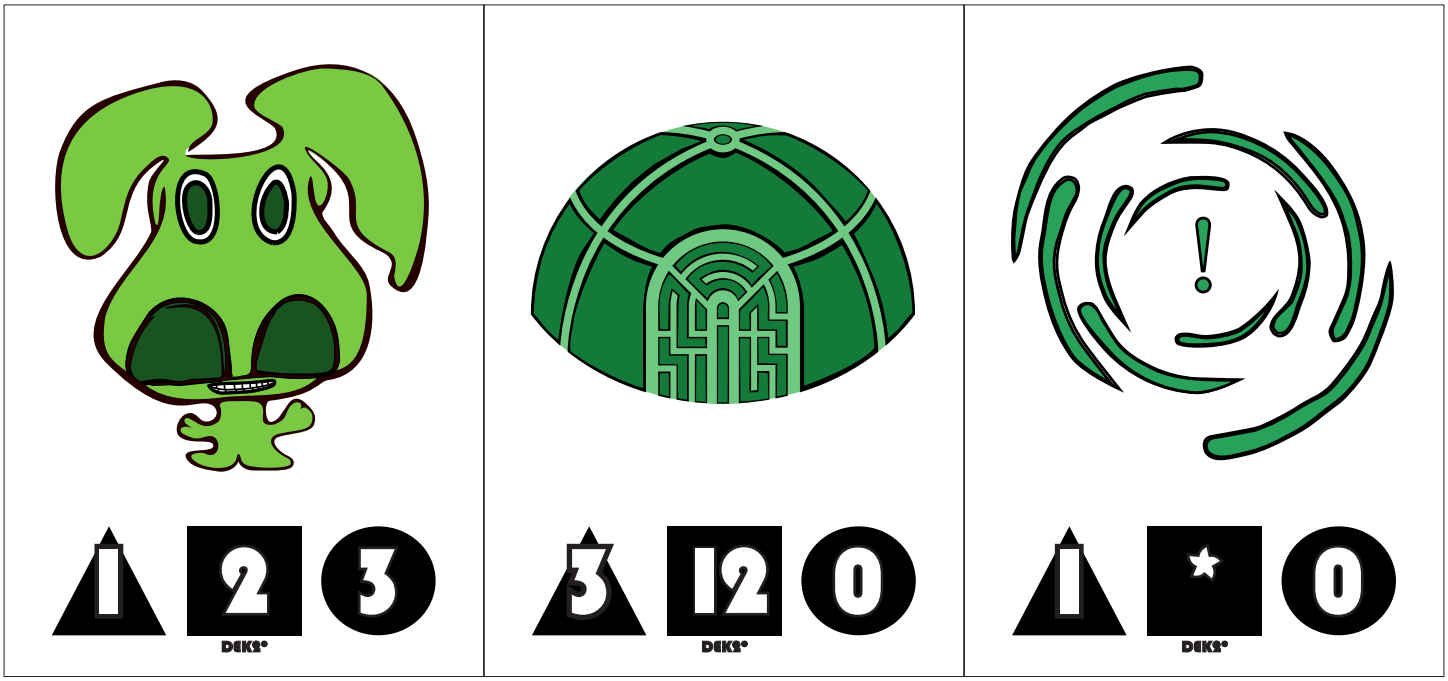
1 5 1

DEKA



1 3 2

DEKA



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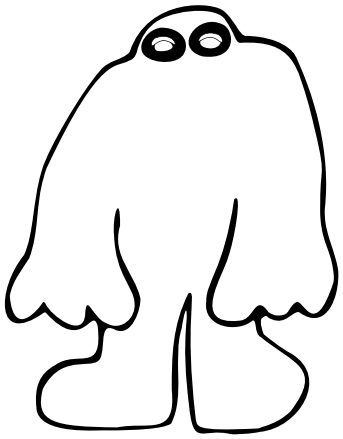
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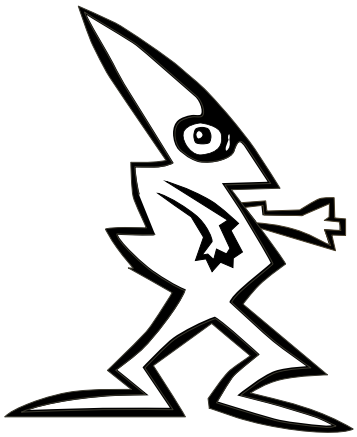
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3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144



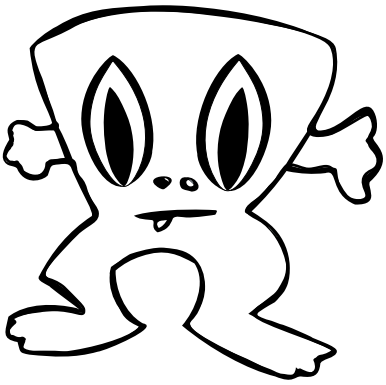
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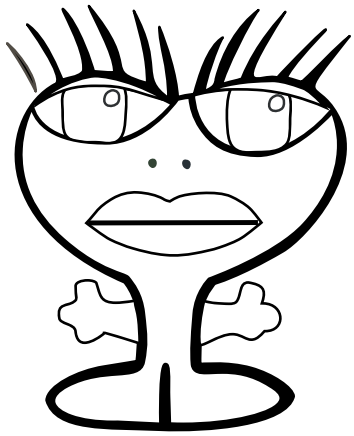
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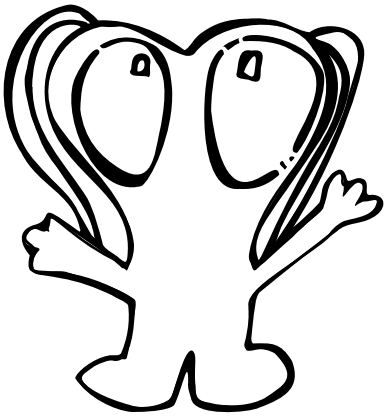
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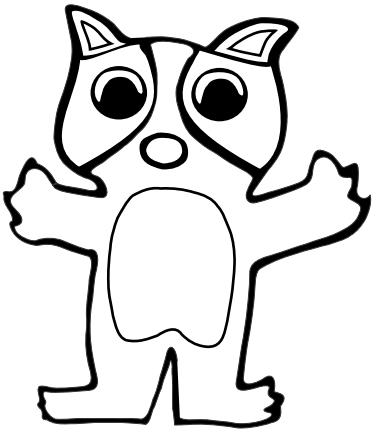
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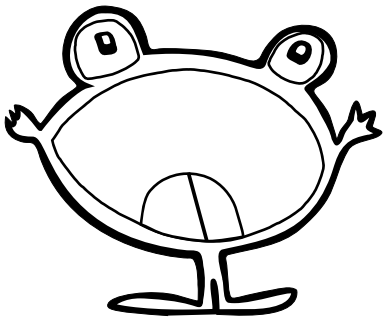
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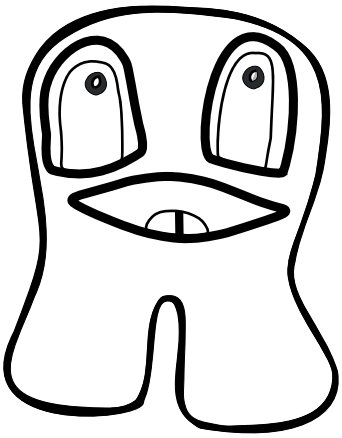
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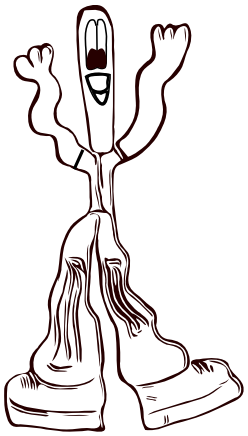
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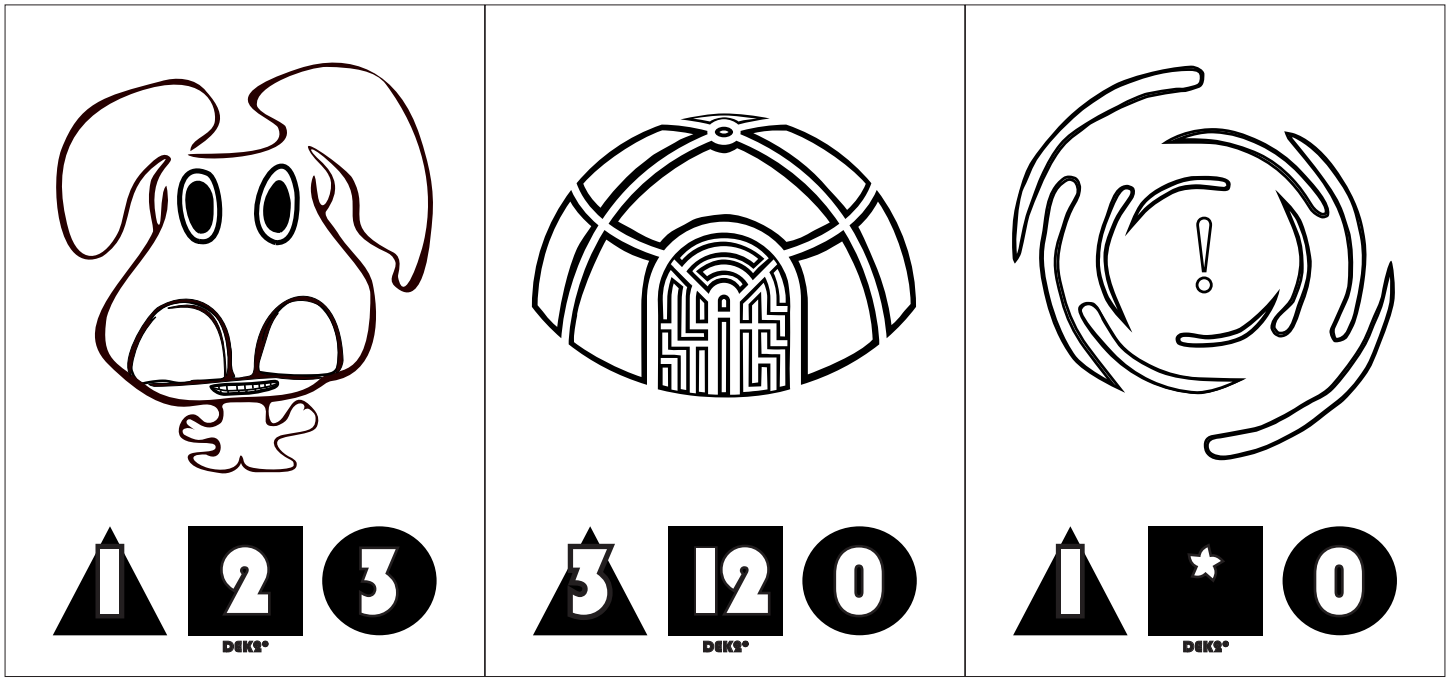
1 5 1

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1 3 2

DEKA



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11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144


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3
9
2


2
8
1

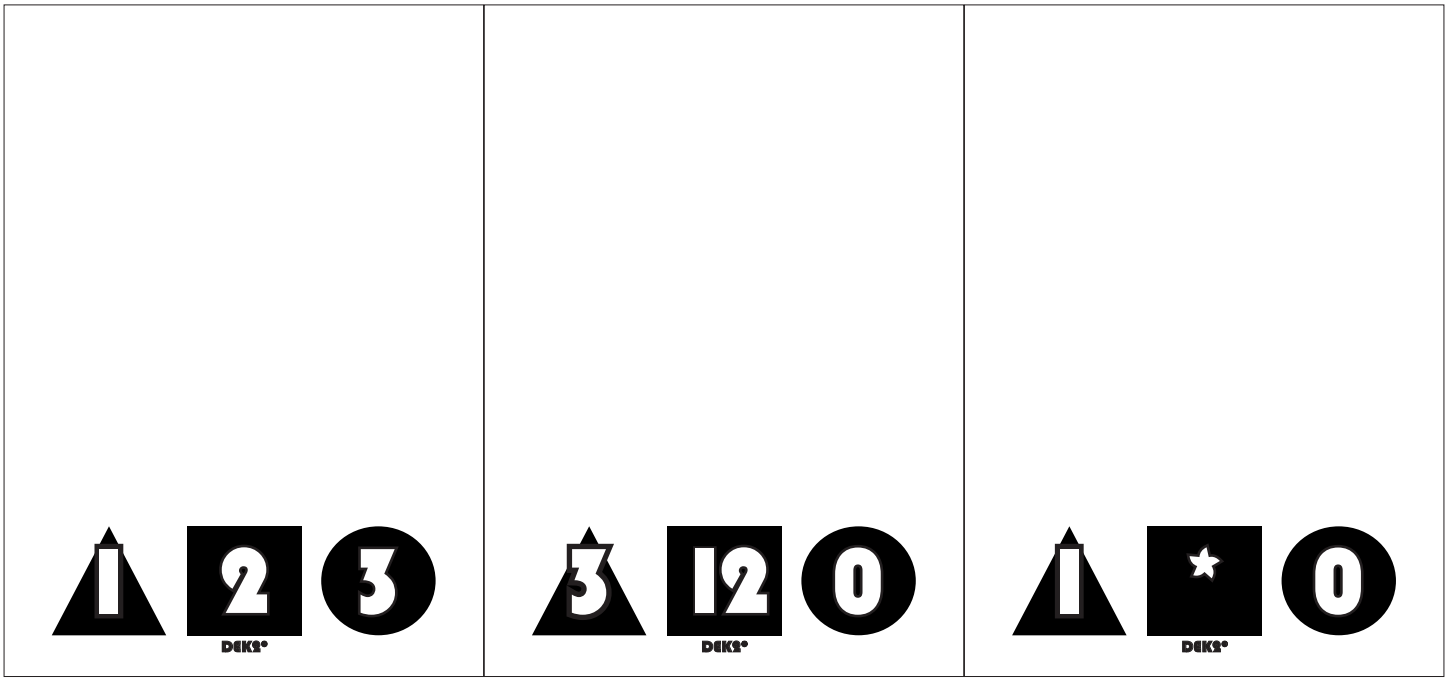

2
6
1


2
4
1


1
7
1


1
5
1


1
3
2



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3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
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11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

DEK2® is a chess-like game of cards, dice, and mental math that is relatively easy to learn but difficult to master. While originally conceived as an ~~escape from the torture of flash cards~~ aid for learning 12 x 12 multiplication facts, game testing has shown that the appeal of the game goes well beyond its educational roots.

A typical game lasts less than 25 minutes, making DEK2® ideal for lunchroom and classroom play.

GOAL

The goal of the game is to defeat your opponent by:

- capturing their "home" card or
- capturing all of their movable cards (i.e. All cards other than the "home" card and the "danger" card. More on these special cards later.)

WHAT YOU NEED

To play DEK2® you need:

- Three, four-sided dice. If you have six dice - three for each player – it does speed up game play.
- Two different collections of 12 cards that conform to the DEK2® standard (see "The Cards").

USING FOUR-SIDED DICE



A four-sided die (D4) is shaped like a three-sided pyramid (a tetrahedron, if you want to be technical). Unlike six-sided dice, when you roll D4s they land with a point at the top instead of a flat surface. There are two types of D4 on the market – one where the number produced by a roll is the number along the bottom edge of the dice and one where the result is the number closest to the top. For simplicity, be sure to use one type of D4.

In DEK2®, you will roll one, two, or three dice at a time. If a roll produces a tie score, simply roll again as many times as required to generate a unique score.

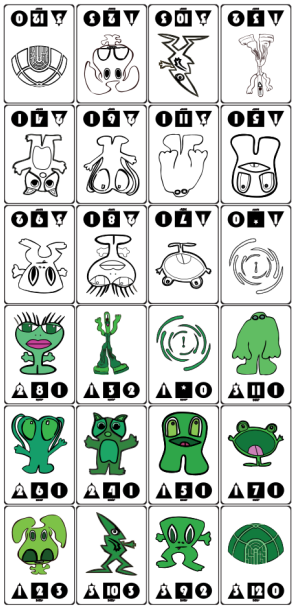
THE CARDS

DEK2® is not a deck building game. Rather, the cards are more like chess pieces. Like chess, each player starts the game with a set of the same pieces.

An identifiable collection of 12 required cards is called a personality set. In the standard DEK2® starter kit there are two personality sets - one blue and one green. A blank set is also available for those who would like to illustrate their own themed cards. The actual pictures on the cards are not important, however the mix of multiplier/dice/movement combinations is very important. In a regulation game of DEK2®, a personality set must include one of each card listed below.

Dice	Multiplier	Movement	Maximum Possible Score	Notes
3	12	0	144	**"Home" card.** May not challenge. Only defends.
1	*	0		"Danger" card. Each player rolls one die; highest die wins; Re-roll for a tie
3	11	1	132	
1	5	1	20	
1	7	1	28	
2	8	1	64	
2	6	1	48	
2	4	1	32	
1	3	2	12	
3	9	2	108	
1	2	3	8	
3	10	3	120	

STARTING THE GAME – "FRIENDLY" RULES



Put the cards of two personality sets "head to head" in a combined grid six rows deep and four cards wide. Each player's cards are placed in their own half of the grid. In a friendly game, you can start the game when each player is satisfied with their own starting configuration. To decide who goes first, each player rolls one die. The high roll goes first.

STARTING THE GAME – TOURNAMENT RULES

What follows are rules to be used in a tournament setting.

You might be asking "Why is tournament set up so complicated?!" when simply laying out the cards face-up on each side is a reasonable starting point? After you have played a few games, you will learn how important the starting configuration is to the outcome of the game. For instance, most players want to start the game with their home card in a corner so that it can only be challenged from a maximum of three spots. The tournament rules are designed to make set-up a fair and strategic part of the game.

Step 1: Shuffle the cards and create the playing grid - Roll one die. The player with the high roll is the dealer. The dealer, aka Player A, takes all 24 cards (from two personality sets), shuffles them, and puts them down, face-up, in a tight grid, four cards wide and 6 cards deep. Hint: it is very important that all the cards be in closely packed, neat rows and columns from the very start. It makes the grid of the playing area easier to imagine as cards are removed during gameplay. During play, all card movement takes place within this rectangular grid.

Step 2: Create sides - Each personality set needs to be arranged so that it is on the correct half of the grid; the side of the player to which the cards belong. Starting with the non-dealer, aka Player B, each player takes turns swapping one of their cards that is on the opponent's side with an opponent's card on the wrong side. When all of the cards are on the correct half of the grid, be sure that they are turned so their numbers are toward the player on that half.

Step 3: Adjust the cards - In the adjustment stage, each player changes the random card layout of their cards to match their own strategy. This is done by taking turns swapping cards on their own side of the playing area a maximum of 12 times.

The dealer starts. The player can either pass or swap cards. To swap, the player selects any two cards that belong to him/her and swaps their position on the grid. Then it is the opponent's turn to either pass or swap two cards. Both players can use a maximum of 12 swaps each. The adjustment stage is complete when both players pass consecutively or when each player has used 12 swaps.

Step 4: Choose who starts - The player who uses the fewest number of swaps to adjust their card set up gets the first turn. If both players use the same number of swaps, Player B, the player who didn't deal has the first turn.

IT'S YOUR TURN

Players alternate turns. On a turn, a player can choose only **one** action. The player can either:

- pass,
- challenge,
- move one of their own cards
  or, in special cases,
- execute a "mega-move," or
- regenerate a previously captured card.

The game is over when a player either:

- captures their opponent's "home" card, or
- captures all of their opponent's movable cards.

A player also loses if they have no legal action and are not allowed to pass (see "Pass").

PASS

A player may choose to pass their turn to their opponent as long as:

1. they did not pass their previous turn *and*
2. their opponent did not pass their move.

If a player has no legal action (no move, challenge, mega-move, or regeneration) and is not allowed to pass, they lose the game.

CHALLENGE



Any or all cards touching an opponent's card can be used in a challenge. **Only one card at a time may be attacked, but several cards can be used to attack.** A card is "touching" if it is in the grid along any side or corner of the defending card.

To start a challenge, the player states which card they are challenging. Then the player states exactly which card(s) they are using for the challenge. In the example, the "A" card can be attacked by cards 1 through 5 (either separately or in any combination together), but not 6.

Each player rolls the appropriate number of dice to generate a score (more on this below). The player with the highest score wins the challenge. The defeated card or cards are removed from play. The winning card(s) **do not** move into the open spot created.

The number in the triangle on a card indicates how many dice the player may use in the challenge. The number in the square is the "multiplier." **The score a player gets is equal to the sum total of points counted on the dice rolled multiplied by the sum of the "multipliers" (to a maximum of 12) on the attacking cards.**

For example, assume a player uses a card that has a "multiplier" of 11. The card also has a dice count of 3 (the number in the triangle), so the player rolls three dice. Let's assume the numbers that appear on the rolled dice are 2, 3, and 3. These numbers are added together for a total of eight (2+3+3=8). This number, 8, is multiplied by 11 (the "multiplier" value) for a total score of 88.

A player may challenge with more than one card but can only defend with one card. If the player challenges with more than one card, the number of dice rolled is the sum of all triangles to a maximum of three. In the same way, the sum of the multipliers on all the cards is used, to a maximum of 12. If the player loses a challenge, all the cards used in the losing challenge are removed.

Special cases:

- The home (aka base) card may not challenge. It can only defend against a challenge.
- The "danger" card may only challenge one card at a time and may only be used once. Win or lose it is removed from the playing surface after a challenge. This is true whether it attacks or defends, and once removed it can

never be regenerated. A challenge involving the "danger" card is a simple dice challenge. Each player rolls one die and the highest roll wins (i.e. multipliers are ignored). In case of a tie, players roll again. The "danger" card may challenge the home card. (The "danger" card ensures there is peril for the high value cards.)

It is possible to have a situation where a challenge is so lopsided that it is impossible to roll a high enough score to defend successfully. This is an important strategy point to remember that has some interesting effects on gameplay.

MOVE

If a player chooses the move option, they may move only one card. The number of spaces a card can move is indicated in the circle at the bottom of the card. All cards can move except for the home card (the base) and the danger card; both of these have a zero in the movement circle. The card can move in any direction up to and including the number of grid spaces indicated in the circle as long as the landing spot is empty. You can move a card over occupied spaces, but it cannot land on a space that is already occupied. You may not move a card to a location outside the original 6 x 4 grid.

A player cannot move their card back to the space the card occupied the previous turn. ~~This is known as the "now cut that out quit stalling" rule.~~

MEGA-MOVE

A "mega-move" enables a player to move an entire row of their own cards forward or backward (but not sideways) **and** then challenge or pass **in the same turn.**

A player is allowed to perform a mega-move if:

- All of the cards in a row belong to their set, *and*
- There are at least two cards in the row (gaps are allowed), and at least one of them can move, *and*
- The row in front or behind these cards is completely empty in the direction of the move.

All of the moveable cards in the row are moved either straight ahead or backward into the gap. This will be between 1 and 4 cards in total. After the row of cards is moved, the player may choose to pass or challenge per the normal rules. The challenge can use any of the player's cards, not only the ones that moved.

Note that a row that includes the home and/or danger card can be used in a mega-move, however these "zero move" cards are not moved along with the other cards. A mega-move cannot be made in the sideways direction.

The rule against moving a card back to the space it occupied the previous turn (see "Move") also applies to every card shifted by a mega-move. On the player's next turn, none of those cards may return to its previous space, either by reversing the mega-move or by a single move.

THE INVISIBLE DANGER

A game can stall when neither player is willing to challenge. ~~You can basically ignore this ridiculously complicated rule if both players promise not to behave like panicked poultry.~~ To keep things moving, count the turns since the last challenge, counting both players' turns. Any challenge resets the count to zero. When 20 turns pass with no challenge, the player about to move meets the invisible danger: they roll one die and the danger rolls one die. Re-roll for a tie. If the player wins, nothing is lost. If the danger wins, the player gives up one movable card of their choice; it goes to their captured pile and can be regenerated later. Either way, the count starts again at zero and the player then takes their normal turn. Losing your last movable card this way loses the game.

REGENERATE A CARD

If a player's card contacts the opponent's home card, the player does not need to immediately attack. Instead, they may choose to use subsequent turns to bring back one of their previously captured cards.

Regenerating a card costs four turns. The player selects a card touching the opponent's home card (the home card and the danger card cannot count down a regeneration) and calls out "Regenerate. One." Then on their next turn, they call out "Regenerate. Two." Then "Regenerate. Three," on the turn following. On the final turn, the player calls "regeneration complete" ~~or, more commonly, "give me my card"~~ then retrieves one of their own cards previously captured by their opponent.

A player may only have one card counting down to regenerate at a time. The countdown card may be captured before the countdown is complete. A player may cancel the regeneration process at any time and use their card in an attack. Doing anything else on a turn, or moving the counting card, also cancels the countdown. If the card is chosen to regenerate again, the count starts over.

A regenerated card is placed on the grid on one of the spots touching its own home card. If all of the spots around their own home card are occupied, the player must hold the regenerated card off the grid until a spot becomes available. It is then placed, without using a turn, at the start of the player's next turn.

For the rules, demos and the online game, visit DEK2.com.

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Package Contents

Blue Personality Set
Green Personality Set
Outline Personality Set (for colouring)
Blank Personality Set
Instructions