



Hearts in Unity “Math Games” for Children in Tanzania

As in other countries around the world, math is an integral part of the curriculum in Tanzanian schools. But textbooks and other teaching/learning resources to help the students learn math are scarce or even non-existent in so many Tanzanian classrooms. If the school has math textbooks, the books are often shared by as many as 20 students.

Making our unique “Hearts in Unity” math games is a wonderful project for individuals and for schools, churches, Scout troops, 4-H Clubs, community service clubs and more. It’s fun and easy!

Using the pre-designed math game pages available from Hearts in Unity, you simply color in the squares on the math games with colored pencils, laminate the paper, trim off the laminate edges, and return your completed math games to Hearts in Unity.

The math games are then trimmed to their final size, packaged in individual storage bags, shipped to schools in Tanzania, and placed in the hands of students who are delighted to have these fun games to help them learn math.

A Description of the Game

Each game consists of a math grid (either additional or multiplication) and a game board (a table containing the numbers 1 through 10).

The game is played by 2 children. One child holds the math grid. The other child tosses/drops 2 small stones onto the game board (which is on a table or the floor).

The child who tossed/dropped the stones onto the game board must answer the math problem corresponding with where the stones landed on the game board. If the stones land on a number 2 and a number 5, and the children are working on their addition, then the math problem is $2 + 5$.

The child with the game board answers the question, and the child with the math grid uses the math grid to verify the accuracy of the answer.

Math Grid →

+	1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10	11
2	3	4	5	6	7	8	9	10	11	12
3	4	5	6	7	8	9	10	11	12	13
4	5	6	7	8	9	10	11	12	13	14
5	6	7	8	9	10	11	12	13	14	15
6	7	8	9	10	11	12	13	14	15	16
7	8	9	10	11	12	13	14	15	16	17
8	9	10	11	12	13	14	15	16	17	18
9	10	11	12	13	14	15	16	17	18	19
10	11	12	13	14	15	16	17	18	19	20

Game Board →

6	3	1	5	7
8	2	4	8	10
9	7	5	9	3
2	10	6	4	1

Making the Games

1. Photocopy or print the game page (second page of this document) onto WHITE cardstock (110-lb preferred). Please do not use regular computer paper (e.g. 20-lb or 24-lb) as the finished games will not be durable enough for continued use by the students.
2. Cut the printed cardstock into 4 equal sized squares (5½-inch by 4¼-inch size – if using 8 ½ by 11 inch paper).
3. Color the squares of the math grid and game board with colored pencils.
 - Please do not use crayons as the crayons leave small wax pieces that the laminate does not stick well to.
 - Please do not use markers as the color is often too dark, and the children cannot easily read the numbers on the paper.
 - Please make the math grid and game board colorful – as this makes the game more enjoyable for the children.
4. Affix laminate plastic to both sides of each colored square of paper. The following are options that might be available in your area (the first 2 products listed below might be found in some stores in the same aisle as shelf paper products).
 - Duck brand “Peel and Stick Clear Laminate” permanent adhesive. This product works very well.
 - Contact brand “Clear Covering” adhesive covering. This is considered a “removable” adhesive, but still works ok.
 - Office supply stores also offer plastic laminating services for paper.
5. Ensure the plastic laminate is securely and neatly affixed to each square of paper.
6. Trim off the excess plastic laminate so that it is even with the edges of each square of paper.
7. Place your finished, laminated game pages in a box or sturdy/rigid envelope and mail to the Hearts in Unity address below.

A financial donation to cover the cost to ship your completed math games to Tanzania (\$3 USD per pound) would be greatly appreciated. A shipping cost donation by check or money order can be made payable to Hearts in Unity.

Thank you for your help with this project and the education of children in Tanzania!

+	1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10	11
2	3	4	5	6	7	8	9	10	11	12
3	4	5	6	7	8	9	10	11	12	13
4	5	6	7	8	9	10	11	12	13	14
5	6	7	8	9	10	11	12	13	14	15
6	7	8	9	10	11	12	13	14	15	16
7	8	9	10	11	12	13	14	15	16	17
8	9	10	11	12	13	14	15	16	17	18
9	10	11	12	13	14	15	16	17	18	19
10	11	12	13	14	15	16	17	18	19	20

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X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

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6	3	1	5	7
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