## Brainy Acts of Math

## Logic Activities

Concept: Geoffrey R. Lorenz<br>Author: Sara Inskeep<br>Author: Bonnie J. Krueger<br>Editor: Jonathan Gross<br>Book Design: Patti Jeffers, Brenda Knowis, Jeff Richards

## ELE90/102202

ISBN: 978-0-7877-1956-2
Release Date 2015

Copyright © 2009 Lorenz Educational Press, a Lorenz company.
P. O. Box 802

Dayton, OH 45401-0802
www.LorenzEducationalPress.com
All rights reserved.

The pages in this packet were originally published in Brainy Acts, (ELE90/1022).

Permission to print or photocopy the student activities in this book is hereby granted to one teacher as part of the purchase price. This permission may only be used to provide copies for this teacher's specific classroom setting. This permission may not be transferred, sold, or given to any additional or subsequent user of this product. Thank you for respecting copyright laws.

Lorenz Educational Press
Milliken Publishing Company
Teaching and Learning Company Show What You Know ${ }^{\otimes}$ Publishing LEP interactive
$\qquad$
$\qquad$


## Next In Line!

Divide the class into small teams of 3-4 students and provide each team with $20 \mathrm{M} \& \mathrm{Ms®}$, marshmallows, pretzel sticks, or other small treats. Be sure to tell the students not to eat these "game pieces!"

Read the following sequences aloud. Then have each team use their game pieces to show the next number in the sequence. The teams must work together to find the relationship between the numbers you have read and determine the correct number of game pieces.

1) $2,4,6,8$, $\qquad$
2) $1,3,5,7$, $\qquad$
3) $3,6,9,12$, $\qquad$
4) $4,8,12,16$, $\qquad$
5) $1,4,7,10$, $\qquad$
6) $3,7,11,15$, $\qquad$
7) $2,6,10,14$, $\qquad$
8) $5,8,11,14$, $\qquad$
9) $1,2,4,8$, $\qquad$
10) $25,22,19,16$, $\qquad$

11) $10,8,6,4$, $\qquad$
12) $60,50,40,30$, $\qquad$

Numbers can be added to or removed from the sequences to make them more difficult. You may also wish to write the sequences on the board for the students to look at while they are working.

## Multiplication Tables

This game is also a great way to practice multiplication tables. Tell the teams which multiplication set you will be using (multiples of 3,5 , etc.) and read the first equation ( $3 \times 1=3$ ). Have the teams show the appropriate number of game pieces for each equation in the set. This allows the students to physically see the multiplication of numbers as you move through the set. Additional game pieces will be needed for this activity.
$\qquad$
$\qquad$


## Hidden Pictures

Use the multiplication grid on the following page to find the answers to the problems. Shade in each answer with the correct color. When you have solved and colored all the answers, you will reveal a picture!

Color these squares green:
$8 \times 5=$ $\qquad$
$8 \times 6=$ $\qquad$
$9 \times 3=$ $\qquad$
$9 \times 4=$ $\qquad$
$9 \times 5=$ $\qquad$
$9 \times 6=$ $\qquad$
$10 \times 5=$ $\qquad$
$10 \times 6=$ $\qquad$
$10 \times 7=$ $\qquad$
$10 \times 8=$ $\qquad$
$11 \times 5=$ $\qquad$
$11 \times 6=$ $\qquad$
$12 \times 5=$ $\qquad$
$12 \times 6=$ $\qquad$

Color these squares red:
$\qquad$
$7 \times 4=$
$7 \times 5=$ $\qquad$
$7 \times 6=$ $\qquad$
$7 \times 7=$ $\qquad$
$6 \times 3=$ $\qquad$
$6 \times 4=$ $\qquad$
$6 \times 7=$ $\qquad$
$6 \times 8=$ $\qquad$
$5 \times 3=$ $\qquad$
$5 \times 4=$ $\qquad$
$5 \times 7=$ $\qquad$
$5 \times 8=$ $\qquad$
$4 \times 3=$ $\qquad$
$4 \times 4=$ $\qquad$
$4 \times 5=$ $\qquad$
$4 \times 6=$ $\qquad$
$4 \times 7=$ $\qquad$
$4 \times 8=$ $\qquad$
$3 \times 4=$ $\qquad$
$3 \times 5=$ $\qquad$
$3 \times 6=$ $\qquad$
$3 \times 7=$ $\qquad$

