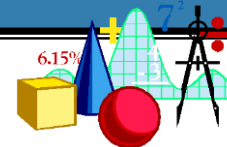


Mathematics, Grade 8

Unit IV: Lesson 3

Puzzle: **Even Sized Magic Squares**



Odd-sized magic squares can be created by using a pattern. Even-sized magic squares are created by a somewhat more complex pattern. Research even-sized magic squares and analyze the pattern.

Create an even sized magic square using fractions. Make a second puzzle leaving some squares blank.

Give copies to your classmates to solve. Demonstrate how the pattern works.

|         |    |           |    |           |           |
|---------|----|-----------|----|-----------|-----------|
| 16 3 2  | 13 | 11 2 13   | 8  | 7 12 1 14 | 9 6 15 4  |
| 5 10 11 | 8  | 5 16 3    | 10 | 2 13 8 11 | 7 12 1 14 |
| 9 6 7   | 12 | 4 9 6     | 15 | 16 3 10 5 | 2 13 8 11 |
| 4 15 14 | 1  | 14 7 12 1 |    | 9 6 15 4  | 16 3 10 5 |

96 11 89 68 88  
69 91 16 61 86  
18 99 19 98 66  
81