

Table of Contents

How to Use

- 1 Challenge word problems
- 2 Graphs; word problems
- 3 How changing dimensions of a rectangle changes the area; challenge area problems
- 4 Challenge word problems, diameter / area relationship of circle, challenge area problems
- 5 Word problems with exponential changes; how exponential changes in dimensions affect area; challenge with area of trapezoid
- 6 Patterns in multiplication; using charts to answer questions about growth of patterns
- 7 Determining sequences in numbers; Fibonacci numbers; three dimensional patterns
- 8 Word problem skills; solving word problems with letters only
- 9 Doing basic operations with letters only
- 10 Word problems with Pythagorean theorem; more operations with letters only
- 11 More on finding patterns
- 12 Rectangles - same area / different perimeter and same perimeter/ different area
- 13 Solving equations with letters only; estimating answers that are irrational square roots
- 14 Using equations to solve word problems
- 15 Practical word problems on finding surface area and purchasing materials
- 16 Exploring five possible regular polyhedrons
- 17 Exploring patterns in Pascal's triangle
- 18 Using algebra to solve word problems
- 19 Word problems involving ratio and proportion; inverse ratio problems
- 20 Proportion with maps
- 21 Prime numbers in Pascal's triangle
- 22 Advanced divisibility rules
- 23 Using polynomial addition to find perimeter
- 24 Practical applications using linear, square, and cubic measures in different units
- 25 Using polynomial multiplication to find area
- 26 Percent of change
- 27 Comparison of results using median and mean
- 28 Percent of error
- 29 Metric measure
- 30 Categories of numbers

Solutions

Glossary

Index