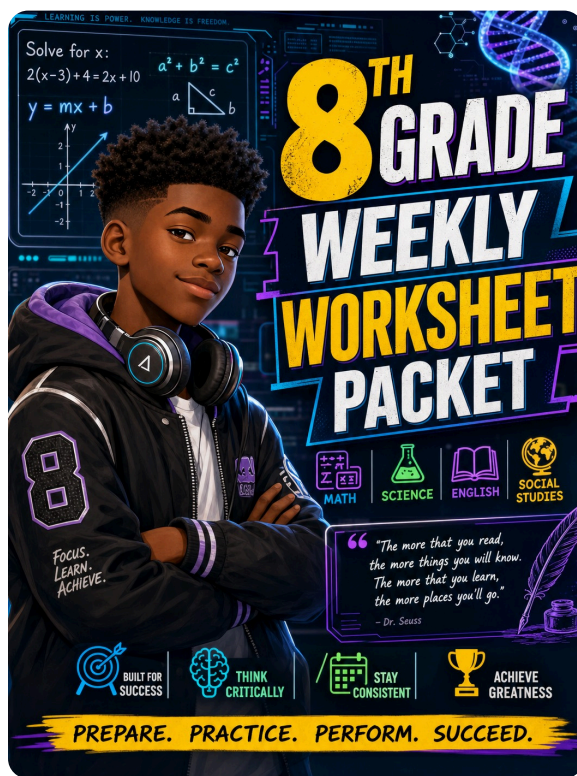


8th Grade Weekly Worksheet Packet



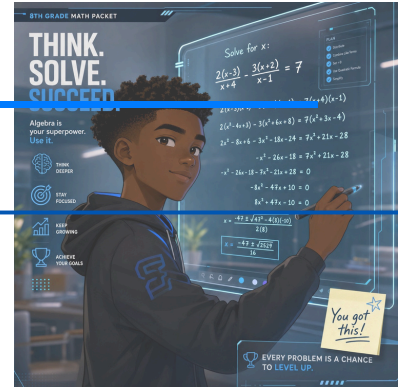
Prepare for High School Success!

Algebra • Functions • Geometry • Reading Writing

Challenging activities designed for advanced middle school learners.
Perfect for classroom, homeschool, and exam prep.

Math: Algebra Foundations

Mastering Linear Equations

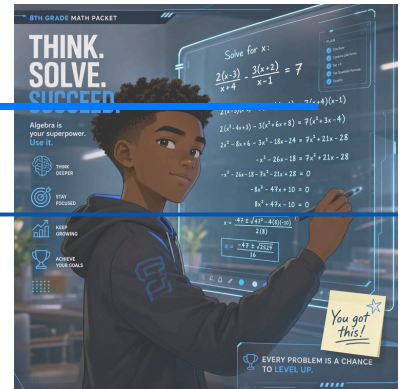


1. Solve for x : $3(x - 2) + 5 = 2x + 7$

2. Graph the equation $y = 2x - 3$ on a coordinate plane.

Math: Understanding Functions

Inputs, Outputs & Relationships



1. Is the relation $\{(1,2), (2,4), (3,6), (1,8)\}$ a function? Explain why or why not.

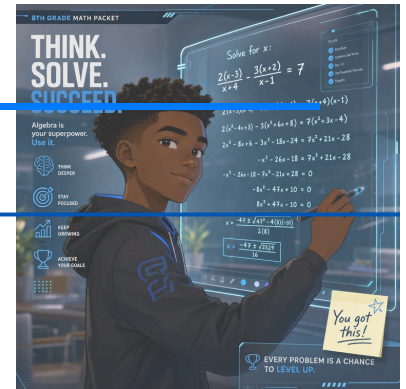
2. If $f(x) = 3x - 1$, find $f(4)$ and $f(-2)$.

$$f(4) = \underline{\hspace{2cm}}$$

$$f(-2) = \underline{\hspace{2cm}}$$

Math: Geometry & Volume

3D Shapes & Spatial Reasoning

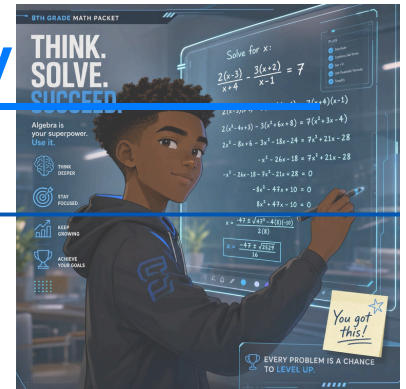


1. A cylinder has a radius of 5 cm and a height of 10 cm. Calculate its volume (use $\pi \approx 3.14$).

2. Find the missing angle in a triangle if two angles are 45° and 60° .

Math: Advanced Statistics & Probability

Data Analysis & Predictions



DataSet: 10,12, 15,15,18,20

1. Find the Mean, Median, Mode, and Range of the data set.

Mean: _____

Median: _____

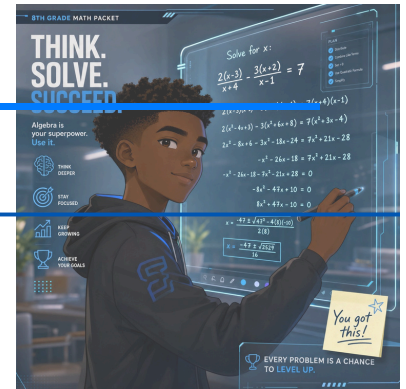
Mode: _____

Range: _____

2. If you flip a coin three times, what is the probability of getting exactly two heads?

Math: Multi-Step Word Problems

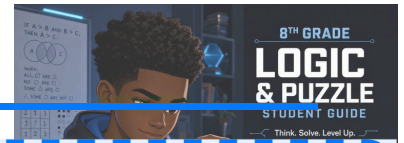
Real-World Application



A rectangular garden is 20 feet long and 15 feet wide. If fencing costs \$2.50 per foot, how much will it cost to fence the entire garden?

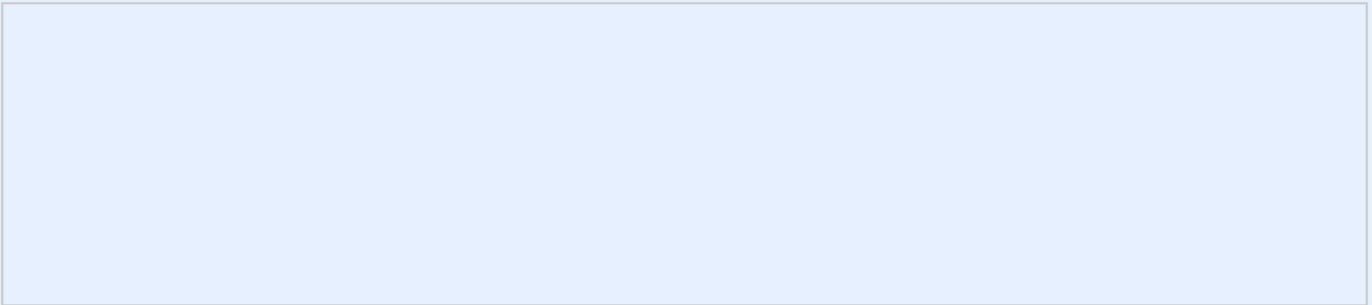
A jacket is on sale for 30% off its original price of \$80. If sales tax is 7%, what is the final cost?

Math: Logic & Critical Thinking



Algebraic Puzzle Grid

Fill in the grid so that each row, column, and 2x2 box contains the numbers 1-4 exactly once. Then solve the algebraic equation in the shaded box.



Equation in shaded box: _____

Answer Key: Math

Math Solutions

Page 2: 1. $x = 8$. 2. Graph should show a line with y-intercept -3 and slope 2.

Page 3: 1. No, because the input 1 has two different outputs (2 and 8).

$$f(4) = 11, f(-2) = -7.$$

Page 4: 1. Volume = 785 cm^3 . 2. Missing angle = 75° .

Page 5: 1. Mean: 15, Median: 15, Mode: 15, Range: 10. 2. Probability = $\frac{3}{8}$.

Page 6: 1. \$175. 2. \$59.92.