

RISE in Action | Part 2

Name: _____ Date: _____

Remember to RISE when solving each real-world math problem.

R — READ: Read the problem carefully. Restate the important information in your own words and leave out unnecessary details.

I — INTERPRET: Identify exactly what the question is asking you to find.

S — SOLVE: Choose a mathematical strategy, show your work, and calculate your answer.

E — EXPLAIN: Explain your reasoning and how you know your answer makes sense.

Directions: Solve each problem using the RISE strategy. Show your calculations and include units in your answers.

1. Cosmetology: Mixing Hair Color

In Mrs. Duncan-Brown's cosmetology class, students are practicing how to mix hair color. The directions say to add 2 ounces of water for every 10 milliliters of coloring. Tonya wants to combine 25 milliliters of blue coloring with 20 milliliters of yellow coloring. How many ounces of water should she add?

READ:

INTERPRET:

SOLVE:

EXPLAIN:

2. Construction: Wheelchair Ramp

Mr. Smith's construction class is planning a wheelchair ramp for A.C. Flora High School. The ramp forms a right triangle with a horizontal base of 16 feet and a vertical height of 12 feet. Using the Pythagorean theorem, determine the length of the sloped ramp surface. A store advertises plywood at \$52.50 for a 10-foot piece and 2-by-4 boards at \$7 for a 20-foot piece; these prices are not needed for this calculation.

READ:

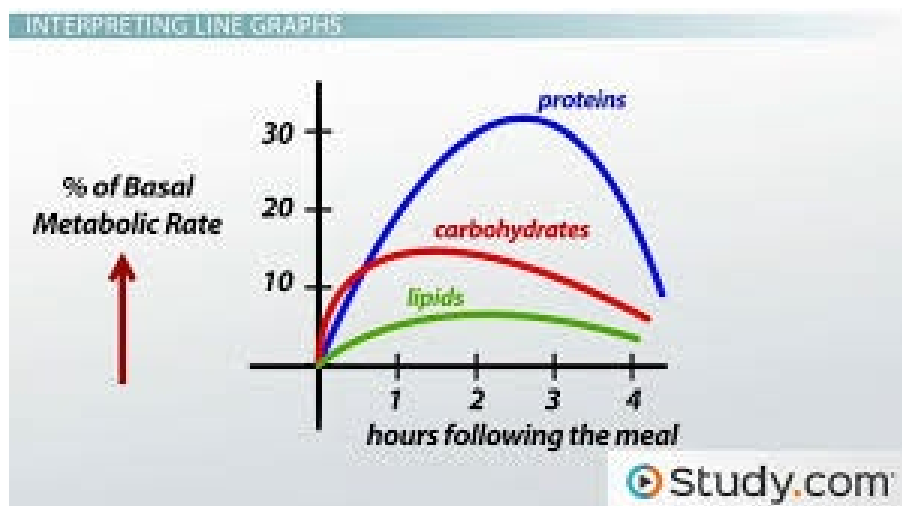
INTERPRET:

SOLVE:

EXPLAIN:

3. Health Science: Reading a Graph

Mrs. V's health science class is examining a graph showing the percentages of basal metabolic rate associated with different nutrients after a meal. Based on the graph below, approximately how many percentage points higher is the protein curve than the lipid curve at 2 hours?



READ:

INTERPRET:

SOLVE:

EXPLAIN:

4. Automotive: Fuel Cost

Gasoline costs \$3.75 per gallon. Mr. Butler's work truck has a 16-gallon fuel tank that is currently one-quarter full. How much will it cost to fill the tank completely?

READ:

INTERPRET:

SOLVE:

EXPLAIN:

Teacher Answer Key

1. 9 ounces. Total coloring = $25 + 20 = 45$ mL; $(45 \div 10) \times 2 = 9$ oz.
2. 20 feet. Ramp length = $\sqrt{16^2 + 12^2} = \sqrt{400} = 20$ ft.
3. Approximately 22 percentage points (graph-based estimate). The graph labels the lower green curve “lipids,” not “liquids.” Accept reasonable estimates supported by the graph.
4. \$45.00. One-quarter of 16 gallons = 4 gallons already in the tank; 12 gallons are needed; $12 \times \$3.75 = \45.00 .