

# Mathematics—Sample Content Levels 14 through 15



Ms. Sanchez has 6 batteries. She buys 3 boxes that each contain 12 batteries. Then, she puts 4 batteries in each of 3 remote controls. How many batteries does Ms. Sanchez have left?

- ☐ 8
- ☐ 14
- ☐ 28
- ☒ 30

This item assesses:

M.11.2 – Demonstrate proficiency in computation procedures, solve real-world computation problems, apply a variety of estimation strategies, and determine reasonableness of results: computation

Thinking Skill – Organize Information—Represent: change for, but not substance, of information

4.OA.3 – Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

NO CALCULATOR

A bag of potatoes weighs 5 pounds. How many ounces does the bag of potatoes weigh?

- ☐ 16
- ☐ 21
- ☒ 80
- ☐ 105

This item assesses:

M.13.18 – Demonstrate an understanding of measurement systems, units, and tools by describing, calculating, or estimating size, location, and time; by using the concepts of perimeter, area, volume, capacity, weight, and mass; and by identifying appropriate degrees of accuracy: convert measurement units

Thinking Skill – Organize Information—Represent: change for, but not substance, of information

4.MD.1 – Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

CALCULATOR

Which three expressions have the same value as  $3 \times 4 + 2 \times 5$ ?

- ☒  $(3 \times 4) + (2 \times 5)$
- ☐  $(3 \times 4 + 2) \times 5$
- ☐  $3 \times (4 + 2 \times 5)$
- ☐  $3 \times (4 + 2) \times 5$
- ☒  $3 \times 4 + (2 \times 5)$
- ☐  $(3 \times 4) + 2 \times 5$

This item assesses:

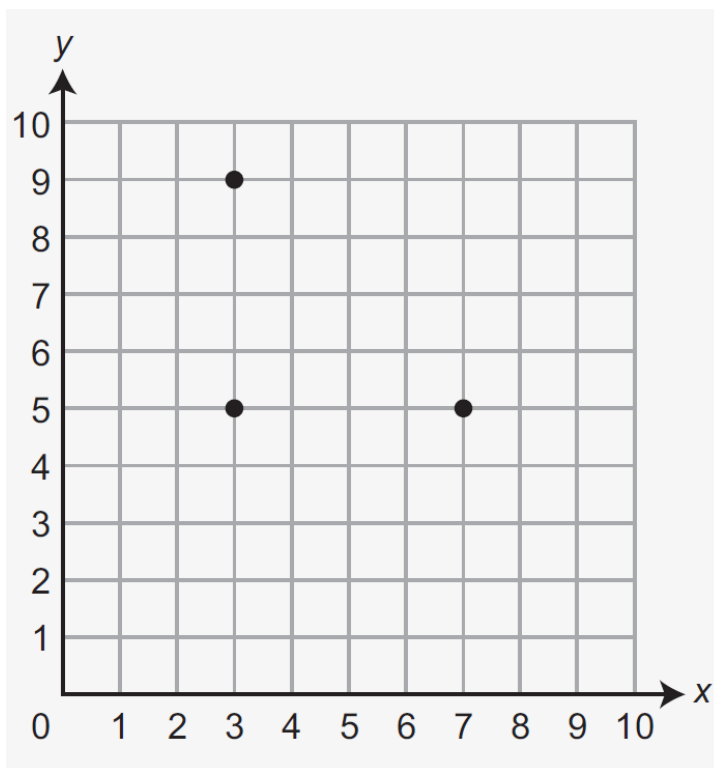
**M.12.3** – Demonstrate an understanding of the properties and relationships of operations, relate mathematical representations to problem situations, and apply operational processes to solve problems: order of operations

**Thinking Skill – Organize Information—Represent:** change for, but not substance, of information

**5.OA.1** – Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.

**NO CALCULATOR**

Three vertices of a square are plotted on a coordinate plane.



This item assesses:

**M.14.7** – Demonstrate spatial sense and an understanding of geometry by visualizing and identifying two- and three-dimensional objects, classifying shapes, recognizing symmetry, using transformations, applying geometric formulas, and evaluating properties of geometric figures: coordinate geometry

**Thinking Skill – Analyze Information—Identify Attributes and Components:** determine characteristics or parts of something

**5.G.2** – Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

**CALCULATOR**

What ordered pair represents the fourth vertex of the square?

- ☐ (3, 3)
- ☒ (7, 9)
- ☐ (9, 7)
- ☐ (9, 9)