



Unit 1 — Quiz 1: Variables, Phrases, and GEMDAS

Course: Algebra 1 — Merit Education Group **Covers:** Lessons 1–5 | **Format:** Partial period (15 min) |

Standards: 9.3.5.5, 9.3.5.7 **QTI Filename:** Assessments/U1 Quiz1 QTI.xml **Directions:** Show all work on quizzes and summative assessments. Work must be turned in for full credit.

1 QUESTION 1 — VARIABLES (9.3.5.7) [T1]

Write an algebraic expression for the phrase: “A number increased by 12.”

2 QUESTION 2 — TRANSLATING (9.3.5.7) [T1]

Translate into an algebraic expression: “Twice a number, decreased by 7.”

3 QUESTION 3 — TRANSLATING (9.3.5.7) [T2]

Translate: “The quotient of a number and 5, plus 3.”

4 QUESTION 4 — GEMDAS BASICS (9.3.5.5) [T1]

Evaluate: $8 + 6 \times 3$

5 QUESTION 5 — GEMDAS WITH GROUPING (9.3.5.5) [T2]

Evaluate: $(12 - 4) \times 3 - 7$

6 QUESTION 6 — GEMDAS MIXED (9.3.5.5) [T2]

Evaluate: $15 - 9 \div 3 + 2$

7 QUESTION 7 — EVALUATING WITH ONE VARIABLE (9.3.5.7) [T1]

Evaluate $x + 9$ when $x = 7$.

8 QUESTION 8 — EVALUATING WITH ONE VARIABLE (9.3.5.7) [T2]

Evaluate $3x - 5$ when $x = 4$.

9 BONUS — CHALLENGE [T3]

Write an expression for: “Maya bought 3 shirts at d dollars each and 2 pairs of pants at p dollars each. Write an expression for the total cost before tax.”

10 QUESTION 9 — FILL-IN-THE-BLANK WORD PROBLEM [T2] (9.3.5.5)

A taxi charges \$ 3.50 plus \$ 0.40 per mile. Write an expression for the cost of a ride that is m miles long, then find the cost of a 10-mile ride.
