It Doesn't Work That Way

Nevada High School Proficiency Exam

Content Standard: C1—Numbers, Number Sense and Computation
1.12.8 Identify and apply real number properties to solve problems.

Which of the following statements is NOT always true for real numbers *a*, *b*, and *c*?

A $a(b \cdot c) = (a \cdot b)c$

B $a \div (b + c) = (b + c) \div a$

C $a(b + c) = a \cdot b + a \cdot c$

D $(a + b) + c = a + (b + c)$

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Fear Factor

Nevada High School Proficiency Exam

Content Standard: C2—Patterns, Functions and Algebra
2.12.3 Add, subtract, multiply, and factor 1st and 2nd degree polynomials connecting the arithmetic and algebraic processes.

Which expression shows the polynomial $5x^2 - 10x + 5$ in factored form?

A $(5x - 1)(x - 5)$

B $5(x - 1)(x + 1)$

C $(5x + 1)(x + 5)$

D $5(x - 1)^2$

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Making Money

Nevada High School Proficiency Exam

Content Standard: C3—Measurement

3.12.4 Interpret and apply consumer data presented in charts, tables, and graphs to make informed financial decisions related to practical applications.

2010 Tax Table

If line 43 (taxable income is --		**And you are --**	
At least	But less than	Single	Married filing jointly
		Your tax is---	
50,000	50,050	8,688	6,666
50,050	50,100	8,700	6,674
50,100	50,150	8,713	6,681

2011 Tax Table

If line 43 (taxable income is --		**And you are --**	
At least	But less than	Single	Married filing jointly
		Your tax is---	
80,000	80,050	16,131	12,256
80,050	80,100	16,144	12,269
80,100	80,156	16,150	12,281

In 2010, Sam's taxable income was $50,042 and he filed his taxes as a *single* taxpayer.
In 2011, his *single* taxable income was $30,075 more than he earned in 2010.

How did Sam's federal taxes in 2010 compare to his federal taxes in 2011?

A His tax was $7,462 less in 2010.
B His tax was $7,456 less in 2010.
C His tax was $7,443 less in 2010.
D His tax was $7,437 less in 2010.

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Reach for the Top

Nevada High School Proficiency Exam

Content Standard: C4—Spatial Relationships, Geometry, and Logic
4.12.7 Apply the Pythagorean Theorem and its converse in mathematical and practical situations.

A painter places a ladder against a building such that the base of the ladder is 12 feet from the building. The 20-foot ladder just reaches the roof of the building. How high is the top of the ladder above the ground?

A 20 feet
B 16 feet
C 13 feet
D 8 feet

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Multiple Choices

Nevada High School Proficiency Exam

Content Standard: C5—Data Analysis

5.12.4 Apply permutations and combinations to mathematical and practical situations, including the Fundamental Counting Principle.

With a restaurant entree, choices of 2 different side items can be ordered from a list of 8 side items on the menu. How many different meals can be made by selecting 2 sides to go with a given entree?

A 56 meals
B 28 meals
C 16 meals
D 10 meals

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