

Section 4-2: Simplifying Each Side of an Equation

Like and Unlike Terms

1. 060214a, P.I. A.A.22

What is the solution of the equation

$$3y - 5y + 10 = 36?$$

- [A] 2 [B] 4.5 [C] -13 [D] 13

2. 080015a, P.I. A.A.22

Solve for x : $15x - 3(3x + 4) = 6$

- [A] 1 [B] $\frac{1}{3}$ [C] 3 [D] $-\frac{1}{2}$

3. 080602a, P.I. A.A.22

What is the value of p in the equation

$$2(3p - 4) = 10?$$

- [A] 1 [B] 3 [C] $2\frac{1}{3}$ [D] $\frac{1}{3}$

4. 060233a, P.I. A.N.5

Mr. Perez owns a sneaker store. He bought 350 pairs of basketball sneakers and 150 pairs of soccer sneakers from the manufacturers for \$62,500. He sold all the sneakers and made a 25% profit. If he sold the soccer sneakers for \$130 per pair, how much did he charge for one pair of basketball sneakers?

Representing Two Numbers with the Same Variable

5. 080024a, P.I. A.A.6

The sum of the ages of the three Romano brothers is 63. If their ages can be represented as consecutive integers, what is the age of the middle brother?

[1] C

[2] C

[3] B

[4] \$167.50, and appropriate work is shown, such as $350x + (150)(130) = 1.25(62,500)$ or trial and error with at least three trials with appropriate checks.

[3] Appropriate work is shown, but one computational error is made.

[2] Appropriate work is shown, but more than one computational error is made.

or [2] \$167.50, but only one trial with an appropriate check is shown.

[1] \$167.50, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[4] incorrect procedure.

[2] 21 and the student shows an appropriate solution, such as the equation $x + x + 1 + x + 2 = 63$ or trial and error.

[1] Appropriate work is shown, but an incorrect answer is found.

or [1] An incorrect equation is shown, but it is solved appropriately to find an answer, such as $x + x + 2 + x + 4 = 63$.

or [1] 21 but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[5] incorrect procedure.