

*A.A.6: Analyze and solve verbal problems whose solution requires solving a linear equation in one variable or linear inequality in one variable.*

1. 010801a, P.I. A.A.6

Robin spent \$17 at an amusement park for admission and rides. If she paid \$5 for admission, and rides cost \$3 each, what is the total number of rides that she went on?

[A] 9      [B] 2      [C] 12      [D] 4

2. 010726a, P.I. A.A.6

Mario paid \$44.25 in taxi fare from the hotel to the airport. The cab charged \$2.25 for the first mile plus \$3.50 for each additional mile. How many miles was it from the hotel to the airport?

[A] 13      [B] 11      [C] 12      [D] 10

3. 069925a, P.I. A.A.6

Sara's telephone service costs \$21 per month plus \$0.25 for each local call, and long-distance calls are extra. Last month, Sara's bill was \$36.64, and it included \$6.14 in long-distance charges. How many local calls did she make?

4. 060406a, P.I. A.A.6

Parking charges at Superior Parking Garage are \$5.00 for the first hour and \$1.50 for each additional 30 minutes. If Margo has \$12.50, what is the maximum amount of time she will be able to park her car at the garage?

[A]  $6\frac{1}{2}$  hours      [B]  $3\frac{1}{2}$  hours

[C]  $2\frac{1}{2}$  hours      [D] 6 hours

5. 060409a, P.I. A.A.6

At the beginning of her mathematics class, Mrs. Reno gives a warm-up problem. She says, "I am thinking of a number such that 6 less than the product of 7 and this number is 85." Which number is she thinking of?

[A]  $11\frac{2}{7}$       [B] 84      [C] 13      [D] 637

6. 060111a, P.I. A.A.6

If one-half of a number is 8 less than two-thirds of the number, what is the number?

[A] 48      [B] 24      [C] 54      [D] 32

7. 010909a, P.I. A.A.6

If five times the measure of an angle is decreased by  $30^\circ$ , the result is the same as when two times the measure of the angle is increased by  $18^\circ$ . What is the measure of the angle?

[A]  $-16^\circ$       [B]  $-4^\circ$       [C]  $16^\circ$       [D]  $4^\circ$

8. 010733a, P.I. A.A.6

Every month, Omar buys pizzas to serve at a party for his friends. In May, he bought three more than twice the number of pizzas he bought in April. If Omar bought 15 pizzas in May, how many pizzas did he buy in April?

9. 080928ia, P.I. A.A.6

The ages of three brothers are consecutive even integers. Three times the age of the youngest brother exceeds the oldest brother's age by 48 years. What is the age of the youngest brother?

[A] 14      [B] 18      [C] 26      [D] 22

10. 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?

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[1] D

[2] A

[2] 38 and an appropriate method is shown, such as  $36.64 - (21 + 6.14) = 9.50$  and  $\frac{9.50}{.25} =$

38 or an equation such as  $21 + .25c + 6.14 = 36.64$ .

[1] 38 and no work is shown.

or [1] An appropriate method or equation is shown, but one computational mistake is made.

or [1] The answer of \$9.50 for local calls is found but is not divided by .25.

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

[3] incorrect procedure.

[4] B

[5] C

[6] A

[7] C

[2] 6, and appropriate work is shown, such as solving the equation  $2x + 3 = 15$  or trial and error with at least three trials and appropriate checks.

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

or [1] Appropriate work is shown, but one conceptual error is made.

or [1] A correct equation is written, but no further correct work is shown.

or [1] The trial-and-error method is attempted and at least six systematic trials and appropriate checks are shown, but no solution is found.

or [1] 6, but no work or fewer than three trials and appropriate checks are shown.

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

[8] incorrect procedure.

[9] C

[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

[10] incorrect procedure.