**Algebra 1 Baskets of Tomatoes – Training Set 2 Annotations**

**T2-1 Score 1**

Part A: The student did not provide any equations for the system of equations. The student provided correct but incomplete support by explaining a “check” of the correct solution (*The equation of 8 baskets totaling $36 would be six $5 baskets which equals $30 and two $3 baskets which equals 6. $30 + $6 = $36 and 6 baskets + 2 baskets = 8 baskets*). The student provided the correct solution (*six $5 baskets and two $3 baskets*). [1.5 points]

Part B: The student provided an incorrect explanation (*10b is supposed to be equal to $45. There is supposed to be exactly 10 baskets that will equal exactly $45*) which does not explain why the claim is incorrect. [0 points]

**T2-2 Score 0**

Part A: The student did not provide any equations for the system of equations, an incorrect explanation (*24 + 11 = 36*), and an incorrect solution (*small baskets 24, large number 11*). [0 points]

Part B: The student provided an incorrect explanation (*45 × 5 = 50, He wouldn’t have enough money*) which does not explain why the claim is incorrect. [0 points]

**T2-3 Score 2**

Part A: The student provided only one of two correct equations for the system of equations [*3(x) + 5(y) = 36*]. The student provided correct but incomplete support but showing only a “check” of the correct solution [*3(2) + 5(6) = 36, I did guess and check and these two numbers worked out perfect for this equation*]. The student provided the correct solution (*2 small baskets and 6 large baskets*). [2 points]

Part B: The student provided an incorrect explanation *(8x = 45, 8(5) = 45, $5 is the most money that a basket costs and you can only buy 8, and he wants 10. If you use the $3 and $5 it still doesn’t work*) which does not explain why the claim is incorrect. [0 points]

**T2-4 Score 1**

Part A: The student provided incorrect equation for the system of equations (*x + y = 36*). The student provided correct but incomplete support by explaining only a “check” of the correct solution (*2 small baskets equals $6 and 6 large baskets equal $30 giving that customer their total of $36*). The student provided the correct solution (*2 small baskets and 6 large baskets*). [1.5 points]

Part B: The student provided an incorrect explanation (*x + y = 45, There is no arrangement of baskets to get a total of 10 baskets to equal $45.*) which does not explain why the claim is incorrect. [0 points]

**T2-5 Score 2**

Part A: The student provided only one of two correct equations for the system of equations (*x + 1y = 8*). The student provided an incorrect explanation (*By using equation solver on my calculator, I plugged in my equations*). The student provided the correct solution (*x = 2, y = 6*). [1.5 points]

Part B: The student provided a correct and complete explanation as to why the system of equations (*x = 2.5* and *y = 7.5*) demonstrates that the claim is incorrect (*This customer is incorrect because in Part A it stated that ONLY whole numbers of baskets may be purchased*). [1 point]

**T2-6 Score 4**

Part A: The student provided two correct equations for the system of equations (*3x + 5y = 36* and *x + y = 8*). The student also provided a correct solution process by solving the equation *x + y = 8* for *x* (*x = 8 – y*), substituting *(8 – y)* into the first equation [*3(8 – y) + 5y = 36*], and solving the equation for *y* (*y = 6*). The student then substituted the value of 6 for *y* in the equation *x + y = 8* (*x + 6 = 8*) and solved for *x* (*x = 2*).  Although not required, the student described what the solution represents (*The customer bought 2 small baskets of tomatoes and 6 large baskets of tomatoes*). [3 points]

Part B: The student provided a correct and complete explanation as to why the system of equations (*x = 2.5* and *y = 7.5*) demonstrates that the claim is incorrect (*This other customer’s claim is incorrect because in order for it to be true, he would have had to buy 2.5 small baskets of tomatoes and 7.5 large baskets of tomatoes. However, this is not possible because only whole numbers of baskets may be purchased*). [1 point]

**T2-7 Score 3**

Part A: The student provided two equations for the system of equations (*36 = 3s + 5l* and *8 = s + l*). The student also provided a correct solution process by using the elimination method to solve the system of equations. The student provided the correct solution (*6 = l, 2 = s*). Note that the student did not use the given variables, instead using *s* and *l*, without defining them, which is a 0.5 point deduction. [2.5 points]

Part B: The student provided a correct and complete explanation as to why the system of equations (*x = 2.5* and *y = 7.5*) demonstrates that the claim is incorrect (*The system of equations does prove that the customer could have bought 7.5 large baskets and 2.5 small baskets, but only whole numbers of baskets may be purchased making that claim incorrect*). [1 point]

**T2-8 Score 1**

Part A: The student provided only one of two correct equations for the system of equations (*3x + 5y = 36*). The student provided incorrect support (*5y = 36, 5y/5, 36/5, y =7.1, 3x = 36* [both sides divided by 3]*, x = 12*), and an incorrect solution (*x = 12, y = 7.1*) as the number of baskets must be whole numbers. [0.5 point]

Part B: The student provided an incorrect explanation by using an incorrect equation (*3x = 5y = 45*) which does not explain why the claim is incorrect. [0 points]

**T2-9 Score 4**

Part A: The student provided two correct equations for the system of equations (*3x + 5y = 36* and *x + y = 8*). The student also provided a correct solution process by solving the equation *x + y = 8* for y (*y = 8 – x*), substituting the expression *8 – x* for *y* in the first equation [*3x + 5(8 – x) = 36*], and solving for *x* (*x = 2*). The student substituted the value of 2 for *x* in the equation *x + y = 8* (*2 + y = 8*) and solved for *y* (*y = 6*). Although not required, the student described what the solution represents (*2 small baskets and 6 large baskets were purchased*). [3 points]

Part B: The student provided a correct and complete explanation as to why the system of equations (*y = 7.5*) demonstrates that the claim is incorrect (*This is not correct because a costumer can not take half a basket, only a whole*). [1 point]

**T2-10 Score 3**

Part A: The student provided two correct equations for the system of equations (*36 = 3x + 5y, x + y = 8*). The student also provided correct but incomplete support by showing only a “check” of the correct solution [*36 = 3(2) + 5(6), 36 = 6 + 30, 36 = 36; (2) + (6) = 8, 8 = 8*]. The student provided the correct solution using an ordered pair: (*2, 6*). [2.5 points]

Part B: The student provided an incomplete explanation as to why the system of equations (*45 = 3x + 5y* and *x + y = 10*) demonstrates that the claim is incorrect (*No matter what numbers you put in for x and y you will never be able to pay $45 for any combination of 10 baskets*). [0.5 point]