Math I: Unit 1 Study Guide

Student Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**OBJ. 1: Solving Multi-step Equations/Variables on Both Sides Equations**

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| **Objective** | **Score** |
| 1 | A B NY |
| 2 |  A B NY |
| 3 | A B NY |
| 4 | A B NY |
| 5 | A B NY |

ANSWERS:

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| **1.**  |
| **2.** |
| **3.** |
| **4.** |
| **4/4 = 100** | **3/4 = 80** | **0-2 = NY** |
| **5.** |
| **6.** |
| **7.** |
| **8.** |
| **4/4 = 100** | **3/4 = 80** | **0-2 = NY** |
| **9.** |
| **10.** |
| **11.** |
| **12.** |
| **4/4 = 100** | **3/4 = 80** | **0-2 = NY** |
| **13.** |
| **14.** |
| **15.** |
| **16.** |
| **4/4 = 100** | **3/4 = 80** | **0-2 = NY** |
| **17.** |
| **18.** |
| **19.** |
| **20.** |
| **4/4 = 100** | **3/4 = 80** | **0-2 = NY** |

1. Solve for x; 6(x + 2) – 5x = 61
2. Solve for x; $10= -2(x-5)$

3. Solve for x; $3\left(4x-3\right)= -6+12x$

A. x = 12 C. Infinitely Many Solutions

B. No solution D. x = 0

4. . Solve for x; $\frac{1}{2}\left(8x-6\right)-x=5\left(x+2\right)-3$

**OBJ. 2: Inequalities**

5. Solve: -2(x + 1) >12

6. Solve: 5x – 4(x – 1) > -5x + 40

7. Would 3 be a solution to the inequality above?

8. Solve: $\frac{3x-4}{5}+2>6$

**OBJ. 3: Literal Equations**

9. Using: $d=rt^{2}$; solve for t

10. Standard form of a linear equation is 4x-2y=12*;* solve for **y**

11. $C=\frac{5}{9}(F-32)$; solve for f

12. Area of a trapezoid can be found by: $A=\frac{h(b\_{1}+b\_{2)}}{2}$; solve for h

**OBJ. 4: Word Problems**

13. The length of a rectangle is 4 inches less than twice its width. The perimeter of the rectangle is 64 inches. What are the dimensions of the rectangle?

14. Jack and Jill have a combined age of 49. Jack’s age is 4 more than 4 times Jill’s age. How old is Jill?

15. Find 3 consecutive even integers, such that twice the smallest integer is 12 more than the largest integer.

 16. An isosceles triangle has a perimeter of 45 inches. The legs are 4 times as long as the base. What is the length of the base?

**OBJ. 5: Calculator Inactive: Math I Unit 1 SG**

17. Find the largest of three consecutive integers whose sum is 51.

18. Solve for x; 

19. The formula for the area of a triangle is. If the triangle has a base of 18 cm and an area of 90 cm2. What is the height of the triangle?

20. At your part-time job you work 5 hours on Friday and 6 hours on Saturday. You also receive an allowance of $30 per week. If you earn $129 per week how much do you earn per hour at your part-time job?