**ACCEL ALGEBRA** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**UNIT 1 QUIZ 2 PRACTICE** Period \_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Simplify or Solve

|  |  |  |  |
| --- | --- | --- | --- |
| **a.** | Simplify 2x + 3(x + 2 – y) -12 | **b.** | Simplify $\frac{1}{2}\left(8+3\right)-\frac{5}{2}$ |
| **c.** | Solve $4-\frac{\left(y+2\right)}{3}=0$ | **d.** | Solve $\frac{1}{2}(5x+3)\leq \frac{7}{2}x$ |
| **e.** | Simplify $2\left|7-12\right|÷5$ | **f.** | Solve $\frac{3(x-4)}{2}-14=x-11$ |

1. Solve each inequality or compound inequality below. Show your solution in three ways

|  |  |  |
| --- | --- | --- |
| **Inequality** | **Graph** | **Interval** |
| **a.** |  |  |  |
| **b.** |  |  |  |
| **c.** | $-5-x\geq 7$ or $\frac{-x}{4}<-1$ |  |  |

**3.** Decide if the situation could best be modeled by an equation or inequality and then solve. Write what the solution means in a complete sentence.

 **a.**  Find three consecutive odd numbers whose sum is 201. Would it be possible for three consecutive even numbers to have a sum that is odd?

 **b.** Julie only has $60 to spend. She wants a drink that costs $1.50 including tax and she wants to buy a pair of pants, which has a 7% sales tax. What is the inequality that represents the amount of money she has to spend?

|  |  |
| --- | --- |
| A.  | B.  |
| C.  | D.  |

 **c**. Tina wanted to see the theatrical production *Wicked*. She ordered 6 tickets online and had to pay a 3% service charge plus $4.90 for shipping. If her total was $283.00, what was the cost of each ticket?

 **d.** Dan has a long distance phone plan that charges 10 cents a minute. The monthly service charge which includes all taxes is $25.85. Dan has budgeted $50.00 a month for his phone bill. What is the maximum number of long distance minutes that Dan can use?

 **e.** Jack has a painting that measures 3 ft tall by 4 ft wide. Jack wants to get the painting matted and framed and hang it in between two bookshelves. The distance between the bookshelves is 5 feet. Assuming he wants to leave 2 inches on either side of the bookshelf, what’s the maximum number of inches he can use for the matting and frame?

**Accelerated Algebra Unit 1 Quiz 2 Practice Key**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1a.** | 5*x* – 3*y* - 6 | **b.** | 3 | **c.** | *y* = 10 | **d.** | $$x\geq \frac{3}{2}$$ |
| **e.** | 2 | **f.** | x = 18 |  |  |  |  |
| **2a.** | ,  | **b.** | , (-6, 7),  | **c.** | *x* ≤ -12 or *x* > 4 |
|  |  |  |  |  |  |
| **3a.** | , The three consecutive numbers are 65, 67 and 69. It is not possible for three consecutive even numbers to have a sum that is odd. |
| **b.** | D |
| **c.** | or one ticket costs $45 | **d.** | He can use at most 241 minutes to stay at $50 or below | **e.** | The width of the matting and frame can be at most 4 in |