**Chapter 2 Test Review Sheet**

**Name:**  **Date:**

Identify the terms, factors and coefficients of the following equations. (3 Points)

1). $-22+15y- 7z$ 2). $ 54d+17a-22b$

 Terms: Terms:

 Factors: Factors:

 Coefficients: Coefficients:

Interpret the parts of the following expression (2 points)

3). Vandan is buying fruits and vegetables. He buys *W* apples for $.65 per apple and *Z* carrots for $.10 per carrot. What does the expression $.65w+ .10z$ represent?

Create and expression for the following algebraic models. Simplify your expression. (2 points)

4). The price of an item plus 12% sales tax. 5). The price of a house plus 20% closing costs.

Solve the following expressions. (3 Points)

6). $ 3x+20= 89$ 7). $\frac{2}{5}x+10=15$

Create and solve an algebraic expression for each word problem. (3 points)

8). One month, Molly worked 5 hours more than Dylan, and max worked 2 times as many hours as Molly. Together they worked 110 hours. Find the number of hours each person worked.

9). One moving company charges $350 plus $10 per hour. Another moving company charges $250 plus $15 per hour. At what number of hours will the charge by both companies be the same? What is the charge?

10). Nick plans to make a down payment plus monthly payments in order to buy a motorcycle. At one dealer she would pay $2000 down and $100 each month. At another dealer, she would pay $3000 down and $50 each month. After how many months would the total amount paid be the same for both dealers? What would that amount be?

11. The perimeter of a parallelogram is 120 meters. The width of the parallelogram is 8 meters less than its length. Find the length and the width of the parallelogram.

12). Kim works 6 hours more each day than Jill does, and Jack works 3 hours less each day than Jill does. Over 2 days, the number of hours Kim works is equal to the difference of 2 times the number of hours Jack works and the number of hours Jill works. How many hours does each person work each day?

|  |  |  |
| --- | --- | --- |
|  | Hours Per Day | Hours over 2 days |
|  |  |  |
|  |  |  |

Solve the following equations for the indicated variable. (2 Points)

13). Solve for R. 14). Solve for P. 15). Solve for T

 3P + 8R = Q $\frac{3}{7}$( P + 2) = Y m = WTC

16). The formula c = 5p + 215 relates c, the total cost in dollars of hosting a birthday party at a skating rink, to p, the number of people attending. If Allie’s parents are willing to spend $300 for a party, how many people can attend?

 Solve the Equation for p Substitute Values Into New Equation

Solve and graph the following Inequalities. (3 Points)

17). 5 + 5(x + 4) ≤ 20 18). x + 1 > -5(7 - 2x)

19). The school band will sell pizzas to raise money for new uniforms. The supplier charges $100 plus $4 per pizza. The band members sell the pizzas for $7 each. Write, solve, and graph an inequality to find how many pizzas the band members will have to sell to make a profit?

20). Zachary is planning to send a video game to each of his two brothers. If he buys the same game for both brothers and pays $4.75 to ship each game, how much can he spend on each game without spending more than $100? Write, solve, and graph an inequality for this situation.

Solve the following Inequalities and graph your results. (3 points).

21). -2 < x - 3 < 5 22). -10 < 3x + 2 ≤ 8

23). x - 5 ≥ -2 OR x -5 ≤ -6 24). 4x -1 < 15 OR 8x ≥ 48

Graph the following problem. (2 Points).

25). The recommended alkalinity level for swimming pool water is between 80 and 120 parts per million, inclusive.

Complete the truth table (12 points)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| P | Q | PTrue or False? | Q True or False? | P **AND** QTrue or False? |
| **Blue is a color**  | **7 is a number**  |  |  |  |
| **Blue is not a color**  | **7 is a positive number** |  |  |  |
| **Blue is a color** | **7 is a negative number** |  |  |  |
| **Blue is not a color** | **7 is not a number** |  |  |  |

Complete the truth table (12 points)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| P | Q | PTrue or False? | Q True or False? | P **OR** QTrue or False? |
| **Eminem is a country singer** | **A Cat is a mammal** |  |  |  |
| **Eminem is a rapper**  | **A Cat is a mammal**  |  |  |  |
| **Eminem is a baseball player** | **A Cat is a bird**  |  |  |  |
| **Eminem is a football player** | **A Cat is a bird** |  |  |  |