Part A (2 pts each) Please do not use a Calculator. Write the answer in the space provided.

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| 1. The width of a rectangle is 6 units less than its length *x*. Which expression shows the width of the rectangle?    1. *x*  6    2. 6  *x*    3. 6*x*    4. *x*  6 | 1. Which verbal expression shows 4 ÷ *n*?    1. *n* divided by 4    2. the quotient of 4 and *n*    3. the product of 4 and *n*    4. 4 decreased by *n* |
| 1. Evaluate *x* ÷ *y* for *x*  3 and *y*  12.    1. ¼    2. 4    3. 36    4. 9 | 1. Solve *x* − 68 = −121.    1. −189    2. −53    3. 189    4. 53 |
| 1. Solve 34.8 = *a* + 5.8.    1. 29    2. 39.8    3. 29.8    4. 40.6 | 1. A A printer holds 500 sheets of paper.  After printing it held 210 sheets. Which equation can be used to find how many sheets were printed?    1. *s* − 500 = 210    2. 210 − 500 = *s*    3. 210 + 500 = *s*    4. 500 − *s* = 210 |
| 1. Solve −13*m* = −156.    1. −13    2. 12    3. −12    4. 13 | 1. Solve −*h* = 9.    1. −24    2. −3.375    3. 9.375    4. 72 |
| 1. The quotient of *n* and −0.5 is 13. What is the value of *n*?    1. −26    2. 6.5    3. −6.5    4. 26 | 1. A A printing company will charge $6 plus $0.07 per page. Another company will charge $24 plus $0.04 per page for the same project. For how many pages will the costs be the same regardless of which company is used?    1. 330    2. 600    3. 400    4. 1000 |
| 1. Corey’s motorcycle gets 35 miles per gallon of gasoline. Write an expression for how many miles the motorcycle can travel with g gallons of gasoline   **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | 1. Write the math equation to represent “A number increased by 12 is equal to 27”. Do not solve the equation.   **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| 1. Write the math equation to represent “Seven less than twice a number is three”. Do not Solve the equation.   **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | 1. If 9x − 13  −31, find the value of x − 8.   **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |

Part B (4 pts each) Solve the following equations. Please do not use a Calculator. Answer each question carefully. SHOW ALL WORK for full credit.

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| 1. −7  4y  9 | 1. 6.5  2.5r − 11 | 1. −5v  6v  5 − v |
| 1. −3(b  9)  −6 |  |  |
| 1. 8 – (t – 5) = 0 | 2(a + 3)=7 – (3 – 2a) | 1. Solve for f   −3f = g |
| 1. Solve for h   5h − g = jk | 1. -7x – 5x = -20 |  |
|  |  | 4m – 3[7 – (1 – 2m)] = 2 |

Part C (4 pts each) You **may use a calculator** for this page. Answer each question carefully.

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| 1. At the video arcade, George buys 25 tokens. He uses 2 tokens for each game that he plays. 2. Write an expression for the number of tokens George has left after ***g*** games. 3. Find the number of tokens he has left after playing 1, 4, 10, and 12 games. | 1. The table shows the cost of ordering T-shirts from two different companies.   a) How many T-shirts would it take for the cost of the order to be the same for both companies?  b) What would that cost be?   |  |  |  | | --- | --- | --- | | Company | Price Per Shirt | Shipping | | Crazy Shirts | $8.00 | $13.00 | | T’s for All | $7.50 | $16.00 | |
| Angle **A** is three times the size of angle **B**. The sum of the angle measures is 128°.   1. Find the value of x. 2. Find the value of both angles. | The formula **F = ma** relates the force **F** exerted  on an object, to the object’s mass **m**, and  acceleration **a**.   1. Solve the formula **F = ma** for a. 2. Suppose a shot-putter exerts a **force** of 123.42 kg • m/s2 on a shot that has a **mass** of 4.6 kg. What is the acceleration, **a**, for the shot? Round your answer to the nearest tenth. |