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| **Unit 4: Direct Proportion & Inequalities** | **Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **Per: \_\_\_\_\_\_\_\_\_\_\_** |
| 1. Which of the following sets of values completes the function table?
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| **Input (*x*)** | **3*x* – 1** | **Output (*y*)** |
| 2 | 3(2) – 1 | ■ |
| 3 | 3(3) – 1 | ■ |
| 4 | 3(4) – 1 | ■ |

 |
| 1. 0, 1, 2
 | 1. 5, 8, 11
 |
| 1. 5, 6, 7
 | 1. 6, 9, 12
 |
| **Use the table below for questions 2 – 4.** |
| 1. Mrs. Miller is buying hot dog buns for a cookout. Using the table as a guide, how many packages will she need to buy to have 48 buns?
 |
| 1. 16
 | 1. 18
 | 1. 10
 | 1. 12
 |
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| **x (packages)** | 1 | 2 | 3 | 4 | *n* |
| **Y (buns)** | 3 | 6 | 9 | 12 | ■ |

 |
| 1. What is the rule to find the value of the missing term?
 |
| 1. $y=\frac{3}{x}$
 | 1. **y =** 3*x*
 | 1. **y =** *x* + 2
 | 1. **y =** *x* + 3
 |
| 1. What is the value of *y* if *x-value* is 8 (using the equation you used in #3)?
 |
| 1. 9
 | 1. 15
 | 1. 24
 | 1. 36
 |
| **Use the following information for questions 5-6. Malia earns $5 for every hour that she babysits.**1. Which equation can be used to find *t*, the total amount Malia will earn after babysitting *h* hours?
 |
| 1. *h* = 5 + *t*
 | 1. *t* = 5 + *h*
 | 1. *h* = 5*t*
 | 1. *t* = 5*h*
 |
| 1. How much will Malia earn if she babysits for 8 hours?
 |
| 1. $10
 | 1. $25
 | 1. $40
 | 1. $50
 |
| 1. Which of the following is a solution to the inequality$ b<7.6$?
 |
| 1. 7.5
 | 1. 7.6
 | 1. 7.8
 | 1. None of these
 |
| 1. Which of the following is a solution of the inequality *y* – 5 ≥ 8?
 |
| 1. 8
 | 1. 10
 | 1. 12
 | 1. 15
 |
| 1. 12.gifWhich inequality is graphed?
 |
| 1. *t* ≥ 2
 | 1. *t* ≤ 2
 | 1. *t* > 2
 | 1. *t* < 2
 |
| 1. The inequality *h* ≥ 48 represents the minimum height *h* necessary to ride a certain roller coaster. Who can ride the roller coaster?
 |

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| **Heights (in.)** |
| Miguel | 42 |
| Patrick | 45 |
| Anna | 48 |
| Sara | 52 |

 |
| 1. Sara only
 | 1. Anna only
 |
| 1. Anna & Sara
 | 1. Anna, Patrick & Miguel
 |
| 1. Zachary can spend at most $100 on new clothes. Which inequality represents this situation?
 |
| 1. *s* < 100
 | 1. *s* > 100
 | 1. *s* ≤ 100
 | 1. *s* ≥ 100
 |
| 1. Which table matched the equation y=6.2x?
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| --- | --- | --- | --- | --- |
| X | 3 | 4 | 5 | 6 |
| Y | 18.6 | 24 | 14.4 | 20.6 |

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| X | 6.2 | 12.4 | 18.6 | 24.8 |
| Y | 1 | 2 | 3 | 4 |

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| --- | --- | --- | --- | --- |
| X | 5 | 6 | 7 | 8 |
| Y | 31 | 36 | 49 | 48.2 |

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| --- | --- | --- | --- | --- |
| X | 2 | 4 | 6 | 8 |
| Y | 12.4 | 24.8 | 37.2 | 49.6 |

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| 1. How many solutions does the inequality $x\geq 4$ have?
 |
| 1. None
 | 1. One, x can only equal 4
 |
| 1. Five, x can equal 0, 1, 2, 3 & 4
 | 1. Infinitely many solutions
 |