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| **Unit 4: Direct Proportion & Inequalities** | | **Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | | | **Per: \_\_\_\_\_\_\_\_\_\_\_** |
| 1. Which of the following sets of values completes the function table? | | |  |  |  | | --- | --- | --- | | **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 | | |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **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 =** 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? | | | | | | |
| 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? | | | |  |  | | --- | --- | | **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? | | | | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | X | 3 | 4 | 5 | 6 | | Y | 18.6 | 24 | 14.4 | 20.6 | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | X | 6.2 | 12.4 | 18.6 | 24.8 | | Y | 1 | 2 | 3 | 4 | | | | | |
|  | |  | | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | X | 5 | 6 | 7 | 8 | | Y | 31 | 36 | 49 | 48.2 | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | X | 2 | 4 | 6 | 8 | | Y | 12.4 | 24.8 | 37.2 | 49.6 | | | | | |
|  | |  | | | | |
| 1. How many solutions does the inequality have? | | | | | | |
| 1. None | | 1. One, x can only equal 4 | | | | |
| 1. Five, x can equal 0, 1, 2, 3 & 4 | | 1. Infinitely many solutions | | | | |