Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Algebra 1 SBAC 1st Semester District Assessment Practice**

**PERFORMANCE TASK (PT)**

HSF.IF.B.5 (Q.10 and S.10)

The cost of riding in a taxi for the Yellow Cab Company is x miles at $3.00 per mile with a starting fee of $5.00. The equation below represents the relationship between the miles driven, ***x***, and the cost of the ride, ***F(x)***

**F*(x)=*3x +5**

**Part 1:** What item is represented as the ***independent variable***? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

What item is represented as the ***dependent variable***? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

HSF.IF.A.1

**Part 2:** Complete the table for the given domain values. Write the results as ordered pairs in the form (independent variable, dependent variable).

|  |  |  |  |
| --- | --- | --- | --- |
| **Miles Driven****x** | ***Show all work*** **f*(x)* = 3x +5** | **Cost of the Ride****f(x)** | **Ordered Pair****(\_\_x,\_y\_)** |
| 0 |   |  |   |
| 4 |   |  |   |
| 6 |   |  |   |
| 10 |   |  |   |
| 15 |   |  |   |

**Part 3:** The ***domain*** values are placed on which axis? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 The ***range*** values are placed on which axis? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 What are appropriate domain for this function and why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 4:** Graph the function by plotting the ordered pairs. Label the horizontal and vertical axis. Title the graph.

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| **Ordered Pairs** **(\_\_\_\_\_,\_\_\_\_\_)** **(\_\_\_\_\_,\_\_\_\_\_)** **(\_\_\_\_\_,\_\_\_\_\_)** **(\_\_\_\_\_,\_\_\_\_\_)** **(\_\_\_\_\_,\_\_\_\_\_)** |



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 **Part 5:** Based on your answer from 3c, would it make sense to connect the points on the graph with a line? Why or why not? I think you ***should / shouldn’t*** connect the points with a line because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 6:** Ali rode in a taxi for ***20 miles.*** Use function notation to represent how much Ali had to pay. Evaluate the function. Include units.

**Ali had to pay \_\_\_\_\_\_\_\_\_\_\_\_\_\_ for his taxi ride.**

**Part 7:** Ali wants to compare the total cost of a **20 mile ride** with another taxi company, Taxi’s Are Us. The equation below represents the relationship between the miles driven, x, and the cost of the ride, f(x) for Taxi’s Are Us.

**f(*x*)=4x**

**Calculate how much it would cost Ali to take Taxi Are Us in the space below.**

**It would cost Ali \_\_\_\_\_\_\_\_\_ to take Taxi Are Us for a 20 mile taxi ride.**

Explain which taxi company costs more for a **20 mile drive**. Why would Ali want to do that?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ charges more for a 20 miles drive because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**IS IT A FUNCTION OR NOT A FUNCTION?­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**HAS-CED.A.1**

**ALGEBRA 1 ASSESSMENT**

**EXTENDED RESPONSE (ER)**

Amanda is going to a carnival. Suppose it costs $5 for her to enter the carnival. Each ride costs $1.25. She has $15 to spend at the carnival. What is the greatest number of rides that she can go on?

Define your variable

\_\_ =\_\_\_\_\_\_\_\_\_\_\_

Write your inequality

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Solve your inequality

Amanda can go on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_rides because\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**ALGEBRA 1 ASSESSMENT**

**HSA-SSE.A.2 SELECTED RESPONSE (SR)**

Which of the following equations is equivalent to**?** Analyze each answer choice. Find the correct answer(s) and demonstrate why they are correct. Demonstrate with mathematics why the remaining

distractors are incorrect.

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| **EQUATIONS** | **WORK** | **EQUIVALENT to** **Yes or No** |
| a.) 3(x + 4y) = 48 |  |  |
| b.) 4x - y = 16 |  |  |
| c.) 6x + 24y = 96 |  |  |
| d.) 4x - 4y = 16 |  |  |
| e.) 4y = 16 - x  |  |  |
| f.) -x - 4y = 16 |  |  |
| g.) 4y = x - 8 |  |  |