**Linear Functions Quiz**

**✰ Bonus!**

1. Two taxis charge an initial fee, plus an additional rate per minute. Olivia is in one taxi, talking on the phone to her friend Jamie who is in another taxi. Olivia mentions that her taxi meter reads $5.15 after five minutes, and $7.55 after 10 minutes. Jamie mentions that her taxi meter reads $$4.05 after three minutes, and $6.05 after seven minutes. For how many minutes will Olivia’s taxi be cheaper than the taxi Jamie is in? Show all work to support your answer.

2. Consider the lines given by 4x – 5y = 20 and Ay = Bx + C.

Choose any values for A, B, and C that will cause the lines to be parallel.

A: \_\_\_\_\_\_ B: \_\_\_\_\_\_\_ C: \_\_\_\_\_\_\_

3. Two linear functions, f(x) and g(x), have the relationship: .

Write any possibilities for the functions f(x) and g(x).

f(x) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g(x) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Design any situation in which the x-intercept of the graph of the function that models the situations hold significance. Explain the significance of the x-intercept in context of your situation.

7 + 3 + 3 + 2 + 4 + 4 + 10 + 2 + 4 + 5 + 3 + 1 + 2 / bonus max is 5