Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_

**6.3B HOMEWORK: Comparing Linear Functions**

Be sure to show how you got your answer and label with units where appropriate.

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| --- | --- | --- |
| 1. Manager A earns $15 per hour and receives a $50 bonus. The graph shows the earnings of Manager B.   (HINT: Make tables for both managers)   |  |  | | --- | --- | |  | 1. Which manager has a higher hourly wage? 2. After how many hours does Manager B earn more money than Manager A? 3. When will Manager A have $650? (HINT: Use the equation) | |

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| --- | --- | --- | --- |
| 1. **RACE** You and a friend race each other. You give your friend a 50-foot head start. The distance y (in feet) your friend runs after x seconds is represented by the linear function y= 14x + 50. The table shows the distances you run.      |  |  |  | | --- | --- | --- | | 1. Write a linear function that relates your distance to the number of seconds (write an equation for the table). | 1. Who runs at a faster rate? How do you know? In addition to showing your work, explain. | 1. How long does it take for you to reach 190 feet? How long does it take your friend? | |
| 3. CALOIRES. The number of calories burned y after x minutes of kayaking is represented by the linear function  y = 4.5x. The graph shows the calories burned by hiking.   |  |  |  | | --- | --- | --- | |  | 1. Which activity burns more calories per minute? *Hint: write an equation for hiking.* | 1. Use the linear functions to determine the number of calories burned for 45 minutes of hiking and 45 minutes of kayaking? | |
| **4. SAVINGS** You and your friend are saving money to buy bicycles that cost $175 each. The amount y (in dollars) you save after x weeks is represented by the equation y = 5x +45. The graph shows your friend’s savings.   |  |  |  | | --- | --- | --- | |  | 1. Who has more money to start? 2. Who saves more per week? | 1. Who can buy a bicycle first? Explain. | |

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