NOTES 5.3 Interpreting & Sketching Graphs

1. Each point on this graph represents a person.
**a)** Which person is the oldest? \_\_\_\_\_\_\_\_\_

 What is her or his age?\_\_\_\_\_\_\_\_\_\_

**b)** Which person is the youngest? \_\_\_\_\_\_\_\_\_

What is her or his age? \_\_\_\_\_\_\_\_\_

**c)** Which two people have the same height? \_\_\_\_\_\_\_\_\_ What is this height? \_\_\_\_\_\_\_\_\_

**d)** Which two people have the same age? \_\_\_\_\_\_\_\_\_ What is this age? \_\_\_\_\_\_\_\_\_

**e)** Which of person B or C is taller for her or his age? \_\_\_\_\_\_\_\_\_

**2.** This graph represents a day trip from Athabasca to Kikino in Alberta, a distance of approximately 140 km. Describe the journey for each segment of the graph.



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| **Segment** | **Graph** | **Journey** |
| OA |  | The car leaves Athabasca and takes 2 h to travel 140 km to Kikino. |
| AB |  | The car stops for 1 h. |
| BC |  | The car starts the return trip. The car takes approximately 45 min to travel 50 km toward Athabasca. |
| CD |  | The car stops for approximately 45 min. |
| DE |  | The car takes 1 h to travel approximately 90 km to Athabasca. |

**3.** At the beginning of a race, Alicia took 2 s to reach a speed of 8 m/s. She ran at approximately 8 m/s for 12 s, then slowed down to a stop in 2 s.
Sketch a graph of speed as a function of time. Label each section of your graph, and explain what it represents.



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| **Segment** | **Journey** |
| OA | Alicia’s speed increases from 0 to 8 m/s, so the segment goes up to the right for the first 2 s. |
| AB | Alicia runs at approximately 8 m/s for 12 s. Her speed does not change, so the segment is horizontal. |
| BC | Alicia slows down to 0 km/h in 2 s, so her speed decreases and the segment goes down to the right. |