8—The Roberts Family Reunion

[1]Ernest Roberts is organizing a reunion for his family in his hometown of Miami, Florida. [2]Ernest Roberts looked up the number of miles his only relatives would have to travel to come to the reunion.

[3]His sister, Louisa, lives the farthest from Miami. [4]She is hoping to drive 10 hours each day, and she can't wait to use her brand new jeep.

[5]Ernest's children, Cristina and Alexis, live in Washington, D.C. [6]Andy, Ernest's brother, lives 280 miles farther from Miami than Cristina and Alexis. [7]Andy is planning to take a plane to Miami.

[8]Cousin Esther and her children have rented a van to come to the reunion. [9]Esther estimates that if they travel an average of 70 mph, it will take them about 13 hours from their home to arrive in Miami.

[10]Ernest's aunts, Bertha and Emma, both live in Florida, but Aunt Emma does not drive, so Aunt Bertha (who lives farther north) will pick up Emma. [11]Then both will come together to the reunion. [12]Their cities are 140 miles apart. [13]The chart below lists the cities where all of Ernest's relatives live.

Distances to Miami, Florida (in miles)	
Los Angeles, CA	2720
Dallas, TX	1340
Washington, D.C.	1060
Nashville, TN	910
Orlando, FL	230
Jacksonville, FL	350

Source: http://www.travelnotes.org/NorthAmerica/distances.htm

Questions

1. Where does Esther live? Use complete sentences to explain your thinking.

    _____

    _____

2. Aunt Bertha drove 70 mph from her home to Aunt Emma's home without stopping. How long did this part of her trip take her? _____

    Give the number of the sentence that provides the best evidence for your answer. _____

3. It took Aunt Bertha four hours to get from Aunt Emma's house to the reunion. How many miles per hour was she averaging? Round to the nearest mile per hour. _____ Show your work.

4. If Andy's plane averages 380 mph, and he is taking a direct flight, how long is his flight? Round your answer to the nearest half-hour. Use complete sentences to explain your thinking.

    _____

    _____

5. If Louisa's jeep averages 60 mph, how many hours will she spend driving? Round your answer to the nearest hour. _____

    Give the number of the sentence that provides the best evidence for your answer. _____

6. What operation will you use to find out how many days it will take Louisa to drive to Miami?

    a. Multiply the number of driving hours by 10.
    b. Divide the number of driving hours by 10.
    c. Multiply the number of miles by 60.
    d. Divide the number of driving hours by 24.

    Give the number of the sentence that provides the best evidence for your answer. _____

ANSWERS

8—The Roberts Family Reunion, p. 18

1. Nashville. We know from Sentence 9 that if she travels 70 mph it will take her 13 hours.
   13 · 70 = 910 miles (rate · time = distance). Nashville is 910 miles from Miami, FL.

2. 2 hours. 140 miles ÷ 70 = 2.
   Sentence 12.

3. 58 mph.
   Aunt Emma lives in Orlando (we know Aunt Bertha lives farther north).
   230 ÷ 4 = 57.5

4. $3\frac{1}{2}$ hours. We know Andy lives 280 miles farther from Miami than Alexis and Cristina, so Andy lives 1,340 (1,060 + 280) miles from Miami. He must be flying in from Dallas. 1,340 ÷ 380 mph = $3\frac{1}{2}$ hours.

5. 45 hours. 2720 ÷ 60 = 45.3 hours of driving time.
   Sentence 3.

6. b.
   Sentence 4.