



**Regional Finals  
Colorado Springs and  
Fort Collins  
Colorado  
2 and 9 March 2002**

**Map Reading  
B Division**

\* Tie Breaker Question

## Mercator and the Projections 2002 World Tour:

### The Colorado Leg

#### Colorado State Road Map [Insets included]

1. *Mercator and the Projections* are a rock band traveling through Colorado on their 2002 World Tour. As our story begins, Mick Mercator - lead vocalist and his band mates, Rod Geo - bassist, Britney Scales - keyboards, Ringo Topo - percussion, and Eric Carto - lead guitarist, have just flown into Colorado Springs from their latest gig in London, England. What is the name of the commercial airport in Colorado Springs where their plane landed?
2. After landing and collecting their luggage, the band boards their tour bus to head north on Interstate 25 towards Denver. Shortly after leaving the “Springs” they pass a military facility. What is the name of this facility?
3. As they approach the City of Denver Mick wonders aloud, “How many people live in this burg?” What was the recorded population for the City of Denver in the 2000 Census?
4. In Denver, at the intersection of I-25 & State Highway 2, the bus exits to head due north on State Highway 2. Between US Route 40 and Martin L. King Boulevard, the bus turns left into a park. What is the name of that park?
5. Identify the two Points of Interest within this park.
6. What major state university, home of the Buffaloes, is located in Fort Collins?
7. In Fort Collins, the band feels parched and decides to head northward for cold liquid refreshments although doing so will require a little backtracking later. What is the name of the Point of Interest in Fort Collins that has diverted their attention from their planned route?

\* Tie Breaker Question

8. After a brief stop, the band realizes that they had better hustle if they are to enjoy the sunset from high atop the mountains. The tour bus retraces its route southward on I-25 to Route 34. The bus then turns west onto Highway 34 and soon passes through a small town of 3184 people. What is the name of this town?
  
9. The bus continues traveling westward along Highway 34 until it reaches the Alpine Visitor Center just below Fall River Pass along Trail Ridge Road. Britney, in an excited voice, shouts, “This is, like, an EPIC spot to watch the sunset, DUDES!” What is the elevation at the summit of Fall River Pass?
  
10. In what National Park did the band watch the sunset?
  
11. After watching the sunset for what seemed only a short while, the band crashes in the back of the bus as the driver proceeds along Highway 34 into Granby and then heads westerly along State Highway 40 to Kremmling. The bus continues onward for an additional 52 miles on Highway 40 into “Ski Town USA.” What is the official name of this town?
  
12. What does the series of green dots along this segment of their route indicate?
  
13. With Grand Junction as their final destination of the Colorado leg of their tour, what attraction toward the northwest and shared with the State of Utah attracts their attention?
  
14. Before they set up for their gig in Grand Junction, they head for the government facility to inquire as to whether any special permit is required for their band to perform in the city. For what county does Grand Junction serve as county seat?

**USGS 1:100,000-scale topographic map of Grand Junction**

15. The bus rolls into Grand Junction, and Mick turns to Ringo, “Hey, Dude, we can go white water rafting here between gigs.” What two major rivers could they choose to raft on in Grand Junction?
16. “And, Bro, we could fly in our custom made rafting equipment and some groupies with our private jet,” replied Rod. What airport serves this city?
17. What direction from town is the airport?
18. \* What is the approximate bearing (right to left) in degrees of the major runway at the airport?
19. What is the azimuth (right to left) of the major runway at the airport?
20. “We could also go mountain biking in the forest containing mesas and canyons west of town,” Britney declared excitedly. What nationally recognized area is she referring to?
21. “Gnarly,” replied Ringo. “We could get there if we went to Fruita and then turned south.” How far from the confluence of the two major rivers you identified above in question #15 is Fruita, in miles?
22. How far from the confluence of the two major rivers is Fruita, in kilometers?

Everyone in the band agreed that Grand Junction was a totally awesome place to visit as the bus rolled into town.

**USGS 1:24,000-scale topographic map of Grand Junction**

23. The bus proceeds through the town and stops at a red light near the intersection of Twenty Seventh Street and North Avenue. At that exact moment the band's latest hit song, "Babe, You're Ambling Down The Highway To My Heart," blares over the twenty-four speaker sound system in the bus. The song is being broadcast from the radio tower across the street. What are the call letters of the radio station broadcasting the song?
24. From the intersection, the bus heads south along Twenty Seventh Street for ½ mile when Eric spies a sporting facility to the left and says, "My old lady used to race stock cars over there, Man!" To what sporting facility is Eric referring?
25. \* In what Township, Range, and Section is this sporting facility located?
26. What is the name of the Principal Meridian from which the Range Line is oriented?
27. The bus continues southward and crosses over several railroad tracks. What is the complete name of the railroad company that owns the railroad tracks?
28. The bus rolls on until the road comes to an end. Name the hydrologic feature that lies just beyond the end of the road.
29. "Looks like we're at the end of an awesome road trip, Dudes," Mick comments. "It doesn't get any better than this," he says as he walks down to the river and dangles his toes in the water. What is the approximate elevation of Mick's tootsies?
30. In what general direction does the water in the river flow?
31. \* What is the average percent stream gradient of the river?

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End – Road Scholar B Division Event – 2002 Colorado Regional Finals - Science Olympiad. You survived!

\* Tie Breaker Question