

School Name _____
Team Name/Number _____

Name _____
Name _____



Road Scholar Wicklund Invitational Feb 6, 2016

Total Score: _____

Tie Breaker: _____

Penalty: _____

School Name _____
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Directions: You have 50 minutes to answer the questions below. If you decide to split/separate the test between your partner, be sure you put all the info to identify your team on all the pages. You may use any written material along with ruler, calculator, and compass that you bring in your binder. However, you CANNOT use any smart phone, tablet or laptop/computer; doing so will result in disqualification. Read all questions carefully. Answer must be as completed and descriptive as possible. Be sure to include appropriate units; failure to do so will result in zero (0) pts for the answer. Each question has points, enclosed in [], based on number of possible answers required. Questions mark with an asterisk (*) at the end are count part of your total score, but in the event of a tie, the total correct answer from these questions will be used to break the tie. Completeness and descriptive answer will be weighted and judged to determine the next level of tie breaking.

Material Provided

- AAA **San Francisco Bay** road map and **Clayton Quadrangle**.
- Color Pencil for map drawing

******DO NOT WRITE ON THE MAPS******

15pts penalty will be assessed if maps are found to have been written on after the test session

Do not begin the test until instructed by the event supervisor. When you are done or when 50 min has reached, please wait for event supervisor to check the map before you can turn in the test and be dismissed.

Good Luck!!!

The Super Bowl is coming to town! The Super Bowl is in town!

Hooray to the city of Santa Clara and San Francisco for working together diligently to convince the National Football League(NFL) owners and commissioner to host the Golden Anniversary of Super Bowl 50 right here in the Bay Area. On February 7th, 2016, that's right tomorrow, many people will tune to TV or go there in person (if they can afford the ticket), to witness the clash of 2 football team, the Denver Broncos vs the Carolina Panthers, battling it out for NFL supremacy—the right to claim the ultimate Vince Lombardi Trophy for the 2015 season, Many people believe this is the biggest sporting event of the year in the US.

Back in 2013, when the NFL awarded the Bay Area this monumental event, the stadium was still in early construction stages. So the city officials began work vigorously to prepare for this event; not only preparing the stadium for the game venue, but also the entire Bay Area region to accommodate the surge of visitors that will be visiting this great Bay Area, possibly for the 1st time, area for this main attraction. New hotels, roads and parking infrastructure, public transporting to be built and ready for this one-day event; it must leave good impression for any visitor to want to come back and possibly take resident in Bay Area.

Fast forward to now! It's 2016! The time has come! Ready or not, the Super Bowl will be here! Visitors have already prepared and booked reservations in advance for their excursion in the Bay Area around this time frame. Expect a lot of people visiting this great Bay Area!

Your job today is to provide road direction guidance and information for the newly tourists/visitors to help them plan their visit to the great Bay Area with utmost pleasant experience—one that would cement the Bay Area as the place to be, live and play!

Map: San Francisco Bay

1. [1] Levi's Stadium, formerly known as Santa Clara Stadium, will be the site where all eyes turn to come Feb 7, 2016. Identify the grid location of this site _____
2. [1] Which airport would you advise visitor to fly into, if the visitor wants to be as close to the stadium as possible? _____
3. [2] What other airports are possible; if the visitor cannot find any flight into the airport identify in question #2. _____

While Santa Clara/San Jose may be the major city to host the actual game at the stadium located in #1, San Francisco may be the city to attract many visitors due to tourism popularity. Many people will choose to stay in San Francisco during their visit. For the remaining of this test, the point of reference where our visitor is staying will be in the heart of San Francisco at grid location E-11.

4. [2] As a welcoming committee, you greet the visitor with remark, "Welcome the city and county of San Francisco". How does the map represent San Francisco to support this phrase*?

School Name _____
Team Name/Number _____

Name _____
Name _____

5. [6] While staying in San Francisco, our visitor is also interested in visiting the following places. Identify the grid location and the county of each place below:

	<u>Location</u>	<u>County</u>
a. Lick Observatory	_____	_____
b. Pt Reyes Light House	_____	_____
c. Stanford University	_____	_____

6. [2] Lick Observatory is located on one the highest summit in the Bay Area. Identify the Mountain and its peak elevation. _____

7. [6] It is possible to travel to Lick Observatory without crossing any bridges, but our visitor would like to see some bridges along the way. Advise our visitor on what possible bridges that he/she can cross as a travel route. Identify the bridge names and its cardinal direction location relative to where he/she is staying.

<u>Bridge Name</u>	<u>Relative Location</u>
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8. [1] Approximately how many miles (± 6 miles) is Stanford University from where our visitor is staying?* _____

9. [1] As our visitor plan for Pt Reyes Light House visit, what famous landmark just about 3 miles NE from where he's/she's staying can you advise our visitor as another possible place for sightseeing*? _____

10. [3] When game day come, traffic on the road will be log jam in the area where the game will be played. Many people are encouraged to stay off the freeway and take public transportation. Refer to the inset map on the reverse side. Identify all the possible mass transits that can transport people to or close to the stadium*.

11. [1] Advise our visitor what mass transit he/she can take to go directly into San Francisco Airport to return home _____

Our visitor truly had a phenomenal time during his stay in the Bay Area; and to cap it off, his Denver Broncos took home the winning trophy—making the whole trip even much sweeter.

Map: Clayton Quadrangle

12. [1] This quadrangle covers what arc length area of latitude and longitude? Check the correct answer
_____ 7.5'' x 7.5''
_____ 7.5' x 7.5'
_____ 7.5'' x 7.5'
_____ 7.5' x 7.5°
13. [3] Which of the following are adjacent/neighbors quad? Check all possible answers
_____ Antioch
_____ Clayton
_____ Walnut Creek
_____ Concord
_____ Diablo
_____ Tassajara
14. [1] The change in elevation between any two contour lines on this map is, Check the correct answer
_____ 20ft
_____ 40ft
_____ 60ft
15. [1] If a compass is to be used in conjunction with this map, which direction would the compass needle point toward due to the Magnetic Declination*?
_____ East
_____ West
16. [1] Which corner of the map has the smallest latitude and longitude?
_____ NW
_____ NE
_____ SW
_____ SE
17. [1] According the scale shown on the bottom of the map, every 1 inch on the map is equal to 2000ft on the ground.*
_____ True _____ False
18. [2] In what the directions is this quad located relative to the longitude reference line, the Prime Meridian and the latitude reference line, the Equator*?
_____ and _____
19. [1] What development activity is attributed to a large portion of Clayton Valley tinted in purple*?

School Name _____
Team Name/Number _____

Name _____
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20. [3] Name topographic feature that represent by the following color:
Red: _____
Brown: _____
Black: _____
21. [1] Find Donner Creek flowing between sector 5 & 8. What direction does the stream flow?

22. [1] The Observation Tower, located in sector 9, is the summit with a peak elevation of

23. [2] What PLSS reference features that can also be found at the Observation Tower*?

24. [2] Identify the feature name found at the following PLSS description/location
- NW 1/4 SE 1/4 /31/ T1N—R1E _____
- SE 1/4 SE 1/4 /10/ T1N—R1W _____
25. [2] Determine the PLSS description/location with quarter resolution for the following features*:
Note: Answer must be in correct format. Refer to the previous question for sample format.
- Mt. Zion _____
- Devil Pulpit near the Observation Tower _____
26. [1] Standing at Mt Zion’s summit, what is the azimuth ($\pm 5^\circ$) to Eagle Peak*?

27. [2] Describe how Index Contour lines are represented on the map*

28. [1] Nortonville Road runs side by side along Kirker Creek in Sector 3. What kind of terrain can be identified along this road/creek *? _____

School Name _____
Team Name/Number _____

Name _____
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29. [4] Assuming it is possible to build a road directly connecting between the peak of Mt. Zion and Eagle Peak, determine the gradient(to the nearest .01, ± 0.50) of this road*.

30. [5] This symbol \triangle defines a horizontal benchmark that established exact coordinates (lat/lon) of the point on the map. Determine longitude coordinate ($\pm 5''$), of this benchmark symbol found at the Observation Tower*.

*Note: Your answer must be in **complete** latitude and longitude form. Show all the steps to determine the answer. Partial point will be awarded for work shown even if the final answer is wrong. No point will be awarded, if final answer is incorrect and no work is shown.*

School Name _____
Team Name/Number _____

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Map Drawing: 14 Pts

The square below represents Section 9 (one square mile) of PLSS's township. Use the color pencils provided along with your pencil and draw the requested features.

- A. [3] A stream with southeasterly direction of flow. The stream starts as intermittent stream at 2000 ft. south from the NW corner of the section. Then continue southeasterly joining a perennial stream*
- B. [4] Contour lines to create topography that form the stream bed. The highest elevation is 300 ft. at the NW quadrant and then 240 ft. at the SE quadrant. Contour interval is 10 ft.*
- C. [4] A secondary highway that enter 660 ft. north of the SW corner at $N70^{\circ}E(\pm 5^{\circ})$ bearing and cross the stream with a bridge then turn directly north exiting 330 ft. west of NE corner.*
- D. [3] Correctly label the scale, Section and Contour Interval on this map

