--1. Write a query to allow inspection of the schema of naep table.--

SELECT column\_name, data\_type

FROM information\_schema.columns

WHERE table\_name='naep';

--2. Write a query that returns first 50 records of naep table.--

SELECT \*

FROM naep

LIMIT 50;

--3. Return summary stats for avg\_math\_4\_score by state. Sort A-Z by state name.--

SELECT state, COUNT(avg\_math\_4\_score), ROUND(AVG(avg\_math\_4\_score),3), MIN(avg\_math\_4\_score), MAX(avg\_math\_4\_score)

FROM naep

GROUP BY state

ORDER BY state;

--4. Alter the previous query to return only states with difference in min and max of 30 or more.--

SELECT state, COUNT(avg\_math\_4\_score), ROUND(AVG(avg\_math\_4\_score),3) AS avg, MIN(avg\_math\_4\_score), MAX(avg\_math\_4\_score)

FROM naep

GROUP BY state

HAVING (ROUND(MAX(avg\_math\_4\_score))-MIN(avg\_math\_4\_score)) > 30;

--5. Write a query that returns a field called bottom\_10\_states in year 2000.--

SELECT state AS bottom\_10\_states

FROM naep

WHERE year = '2000'

ORDER BY avg\_math\_4\_score

LIMIT 10;

--6. Calculate the average avg\_math\_4\_score, rounded to the nearest two decimal places, over all states in the year 2000.--

SELECT ROUND(AVG(avg\_math\_4\_score),2)

FROM naep

WHERE year = '2000';

--7. Write a query that returns a field called below\_average\_states\_y2000, all states with an avg\_math\_4\_score less than the average over all states in the year 2000.

SELECT state AS below\_average\_states\_y2000

FROM naep

WHERE avg\_math\_4\_score < ANY

(SELECT ROUND(AVG(avg\_math\_4\_score),3)

FROM naep

WHERE year = '2000')

AND year = '2000';

--8. Return a field called scores\_missing\_y2000 for any states with missing values in avg\_math\_4\_score for 2000.--

SELECT state AS scores\_missing\_y2000

FROM naep

WHERE avg\_math\_4\_score IS NULL

AND year = '2000';

--9.Return state,avg\_math\_4\_score, total\_expenditure for 2000.--

SELECT naep.state, ROUND(avg\_math\_4\_score, 2) AS avg\_math\_4\_score, total\_expenditure

FROM naep

LEFT OUTER JOIN finance

ON naep.id=finance.id

WHERE naep.year = '2000'

AND avg\_math\_4\_score IS NOT NULL

ORDER BY total\_expenditure DESC;