The Green School committee has collected the following data on the total kilowatts of electric and therms of gas that MRHS has used each month since July 2009. In the hopes of decreasing the amount of energy used, the committee has implemented some energy saving methods. Now they would like to see if their methods are working and if there has been a significant decrease of energy consumption.

Your goal is to take their data and perform an appropriate hypothesis test for each type of energy and then present the results. Be sure to discuss which data you used for your test and why you used it. Your results should include your work and be written in layman's terms for the committee who may not have as much statistical background as you. This should be type written (aside from and handwritten work) and is due on
$\qquad$ .

## Site: L75 (MARRIOTT'S RIDGE HIGH)

School year 09-10
Electric
TOTAL KWH

| JUL 2009 | AUG 2009 | SEP 2009 | OCT 2009 | NOV 2009 | DEC 2009 |
| :---: | :---: | ---: | ---: | ---: | ---: |
| 302,700 | 223,200 | 289,500 | 309,300 | 338,100 | 270,600 |
| JAN 2010 | FEB 2010 | MAR 2010 | APR 2010 | MAY 2010 | JUN 2010 |
| 247,500 | 218,100 | 292,500 | 312,000 |  | 267,300 |

School year 10-11
Electric
TOTAL KWH

| JUL 2010 | AUG 2010 | SEP 2010 | OCT 2010 | NOV 2010 | DEC 2010 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| 181,800 | 225,300 | 286,800 | 240,600 | 229,500 | 218,100 |
| JAN 2011 | FEB 2011 | MAR 2011 | APR 2011 | MAY 2011 | JUN 2011 |
| 200,700 | 204,000 | 268,800 | 275,100 |  | 300,900 |

School year 11-12
Electric
TOTAL KWH

| JUL 2011 | AUG 2011 | SEP 2011 | OCT 2011 | NOV 2011 | DEC 2011 |  |  |
| :---: | :---: | ---: | ---: | ---: | ---: | :---: | :---: |
| 240,600 | 225,000 | 313,200 | 240,300 | 233,100 | 238,500 |  |  |
| JAN 2012 | FEB 2012 | MAR 2012 | APR 2012 | MAY 2012 | JUN 2012 |  |  |
| 201,900 | 213,900 | 256,200 | 223,800 |  | 296,400 |  |  |
| 208,500 |  |  |  |  |  |  |  |

School year 12-13
Electric
TOTAL KWH

| JUL 2012 | AUG 2012 | SEP 2012 | OCT 2012 | NOV 2012 | DEC 2012 |
| :---: | ---: | ---: | ---: | ---: | ---: |
| 296,700 | 343,200 | 272,400 | 279,900 | 234,600 | 200,100 |
| JAN 2013 |  |  |  |  |  |
| 240,900 |  |  |  |  |  |

School year 09-10

| Gas | JUL 2009 | AUG 2009 | SEP 2009 | OCT 2009 | NOV 2009 | DEC 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL THERMS | 270 | 357 | 767 | 5,390 | 7,898 | 15,170 |
|  | JAN 2010 | FEB 2010 | MAR 2010 | APR 2010 | MAY 2010 | JUN 2010 |
|  | 14,338 | 15,067 | 8,885 | 4,835 | 2,301 | 422 |

Data continues

School year 10-11
Gas
TOTAL THERMS

| JUL 2010 | AUG 2010 | SEP 2010 | OCT 2010 | NOV 2010 | DEC 2010 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| 287 | 226 | 1,457 | 4,760 | 9,683 | 17,190 |
| JAN 2011 | FEB 2011 | MAR 2011 | APR 2011 | MAY 2011 | JUN 2011 |
| 19,760 |  | 11,828 | 11,769 | 6,104 | 2,957 |

School year 11-12
Gas
TOTAL THERMS

| JUL 2011 | AUG 2011 | SEP 2011 | OCT 2011 | NOV 2011 | DEC 2011 |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 179 | 286 | 1,505 | 6,492 | 10,683 | 16,177 |  |  |  |  |  |  |
| JAN 2012 | FEB 2012 | MAR 2012 | APR 2012 | MAY 2012 | JUN 2012 |  |  |  |  |  |  |
| 14,346 |  |  |  |  |  |  | 14775 | 9495 | 7591 | 1208 | 982 |

School year 12-13
Gas
TOTAL KWH

| JUL 2012 | AUG 2012 | SEP 2012 | OCT 2012 | NOV 2012 | DEC 2012 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| 2627 | 528 | 1163 | 7761 | 10642 | 11952 |
| JAN 2013 |  |  |  |  |  |
| 16105 |  |  |  |  |  |

