



Visiting Grand Teton National Park

Part A To help students read the table and draw a graph, be sure they understand all the labels. Read the headings of the table columns and have them identify the headings in the graph. Discuss how the bars of the graph will be drawn vertically and that the months and numbers should match the table. Some students will feel better about their graphs

if they can use a straightedge. If needed, help students identify the thousands place in each number, and which other number they will look at to round (hundreds). Since the number of visitors increases by 2,000 for each grid line, be sure students understand that they estimate the placement of numbers that do not fall exactly on a line.

Performance Task Rubric

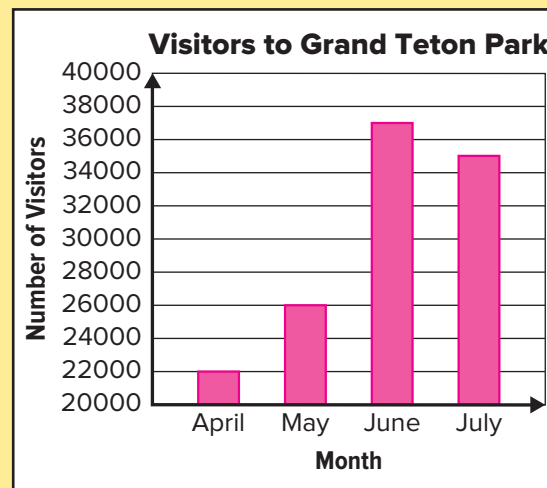
Task Scenario Students will apply concepts of place value to read, write, compare, and round multi-digit whole numbers that represent data from a national park's statistics.

Depth of Knowledge DOK2, DOK3

Scoring Rubric

Part A
4 points

Full Credit



The bar for April should end at the 22,000 line; the bar for May should end at the 26,000 line; the bar for June should end between the 36,000 and 38,000 lines; the bar for July should end between the 34,000 and 36,000 lines.

Partial Credit 3 points will be given if the bars for June and July are slightly off but still between the grid lines.

Partial Credit 2 points will be given for one incorrect or missing bar.

Partial Credit 1 point will be given for two incorrect or missing bars.

No Credit No points will be given for an incorrect answer.



PERFORMANCE TASK

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Part B Consider assigning pairs of students to solve this problem and provide them with two sets of number cards to move around as they reason and discuss the problem. Stress to students that their number must satisfy all the conditions of the problem. Encourage them to use a place-value chart and check through the problem to verify that their answer is correct.

Part C Prompt students to define *expanded form* and *word form* and provide examples of 2- or 3-digit numbers written in these forms. Remind students to correctly use a comma and hyphen in the word form.

Part D Be sure students understand that the mountains are to be listed from least to greatest by height, and not by the name of the mountain. Review the symbols for “is less than” and “is greater than” to be sure students use the correct symbol. Suggest students draw a line through the mountain in the table when it is selected to prevent confusion. Encourage students to use complete sentences when describing how they compared the numbers.

Performance Task Rubric (continued)

Task Scenario Students will apply concepts of place value to read, write, compare, and round multi-digit whole numbers that represent data from a national park’s statistics.

Depth of Knowledge DOK2, DOK3

Scoring Rubric	
Part B 3 points	Full Credit 472,526; The number is between 400,000 and 500,000, so the digit in the hundred thousands place must be 4. The digit 7 is in the thousands place in the June number. For the rest of the year, it is 10 times that and is, therefore, in the ten thousands place. The tens and thousands digits have to be 2, 4, 6, or 8, but the only one of those that can be multiplied by 3 for a 1-digit number is 2. So, the tens and thousands digits are 2, and the ones digit is 6. The remaining digit is in the hundreds place, so that digit is 5.
	Partial Credit 2 points will be given for one incorrect digit or for two if the two incorrect digits are in the thousands and tens places and/or for one mistake in the explanation.
	Partial Credit 1 point will be given for two incorrect digits or for three if the incorrect digits are in the thousands and tens place and/or for two mistakes in the explanation.
	No Credit No points will be given for an incorrect answer.
Part C 2 points	Full Credit $1 \times 1,000 + 2 \times 100 + 5 \times 10 + 4 \times 1$; one thousand, two hundred fifty-four
	Partial Credit 1 point will be given for having either of the two forms written correctly.
	No Credit No points will be given for an incorrect answer.
Part D 3 points	Full Credit $12,326 < 12,513 < 12,605 < 12,805 < 12,927 < 13,776$. Starting at the left, I looked at the digits and moved right and compared each place value. The ten thousands digits are all the same, so I looked at the thousands digits and found one difference. Then I looked at the hundreds digits and put them in order.
	Partial Credit 2 points will be given for one error/omission in ordering and/or in the explanation.
	Partial Credit 1 point will be given for two errors/omissions in ordering and/or in the explanation or the student orders the mountains correctly from greatest to least with no other errors.
	No Credit No points will be given for an incorrect answer.

TOTAL 12 points maximum