

Name: _____

Date: _____

PART A

List the 9 factors of the number 36. Then explain why 36 has an odd number of factors when most numbers have an even number of factors.



Enter your answer and explanation in the space provided.

PART B

Show your work or explain whether or not the number 3 is a factor of 57.



Enter your answer and explanation in the space provided.

ANSWER KEY

Rubric Part A	
Score	Description
2	<p>Student response includes the following components:</p> <ul style="list-style-type: none"> • Computation component = 1 point <ul style="list-style-type: none"> ○ Correct answers, 1, 2, 3, 4, 6, 9, 12, 18, 36. • Reasoning component = 1 point <ul style="list-style-type: none"> ○ Valid explanation of why 36 has an odd number of factors. <p>Sample Student Response: “The factors of 36 are 1, 2, 3, 4, 6, 9, 12, 18, 36. There is an odd number of factors because $6 \times 6 = 36$ so 6 is only listed one time.”</p>
1	Student response includes 1 of the above elements.
0	Student response is incorrect or irrelevant.
Rubric Part B	
Score	Description
2	<p>Student response includes the following 2 components:</p> <ul style="list-style-type: none"> • Computation component = 1 point <ul style="list-style-type: none"> ○ Correct answer, 3 is a factor of 57 • Reasoning component = 1 point <ul style="list-style-type: none"> ○ Valid explanation or work of why 3 is a factor of 57. <p>Sample Student Response: “3 is a factor of 57. I know this because I divided 57 by 3 and I got a quotient of 19 with no remainder. Since there is no remainder, that means 3 is a factor of 57.”</p> <p>NOTE: other valid responses are acceptable.</p>
1	Student response includes 1 of the above elements.
0	Student response is incorrect or irrelevant.

Glow	Grow