

Section 6.3 Achievement Check Rubric

| Category | Level 1 | Level 2 | Level 3 | Level 4 |
|--|--|--|---|---|
| Knowledge and Understanding <ul style="list-style-type: none"> Evaluate numerical expressions involving exponents. Solve equations involving exponents. | Demonstrates limited understanding of manipulating expressions involving exponents. | Demonstrates some understanding of manipulating expressions involving exponents. | Demonstrates considerable understanding of manipulating expressions involving exponents. | Demonstrates thorough understanding of manipulating expressions involving exponents. |
| Thinking <ul style="list-style-type: none"> Prepare a plan to solve the problem. Carry out the plan. | Needs extensive assistance to begin organizing a plan and needs clearly laid out steps to follow. | Needs some assistance to begin organizing a plan and needs some steps to follow. | Needs minimal assistance to organize and implement an effective strategy. | Needs no assistance to organize and implement an effective strategy. |
| Communication <ul style="list-style-type: none"> Clear explanations and full justifications of steps in solutions. Correct use of mathematical conventions. | Does not clearly explain or justify solution steps. Uses correct mathematical conventions in some of the solution. | Explains and justifies solution steps somewhat. Uses correct mathematical conventions throughout most of the solution. | Explains and justifies solution steps fully. Uses correct mathematical conventions throughout the solution. | Explains, justifies, and shows insight into the most efficient solution steps. Uses correct mathematical conventions throughout the solution. |
| Application <ul style="list-style-type: none"> Apply knowledge of exponents and equation solving. | Manipulates the equation ineffectively and has difficulty finding solutions. | Manipulates the equation somewhat effectively and has difficulty finding solutions. | Manipulates the equation with considerable effectiveness and has little difficulty finding solutions. | Manipulates the equation with a high degree of effectiveness and has no difficulty finding solutions. |

