
















# Unit Reflection: Exponentials and Logarithms

| Learning Target<br> |  Success Criteria (What you need to know)   | How well do you know this?<br><b>(YOU)</b> | Are you sure?<br><b>(US)</b>              |
|--|---|--|---|
| LE1:<br>Exponential Equations  | <ul style="list-style-type: none"> <li>✓ Be familiar with the basic form of an exponential equation</li> <li>✓ Recognize whether an exponential equation represents growth or decay</li> <li>✓ Write an exponential equation from two points</li> <li>✓ Write a basic exponential equation from a word problem</li> <li>✓ Solve an exponential equation, given a value for the independent variable</li> </ul>  | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹  | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹ |
| LE2:<br>Logarithms   | <ul style="list-style-type: none"> <li>✓ Convert an exponential equation to the equivalent logarithmic equation</li> <li>✓ Convert a logarithmic equation to the equivalent exponential equation</li> <li>✓ Solve an equation by converting it to the other form</li> </ul>   | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹                    | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹                   |
| LEe: More Logarithms   | <ul style="list-style-type: none"> <li>✓ Know the base of the common logarithm, and evaluate on calculator</li> <li>✓ Know the base of the natural logarithm, and evaluate on calculator</li> <li>✓ Use the change of base formula to evaluate other logarithms</li> </ul>  | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹                    | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹                   |
| LE3: Properties of Logarithms  | <ul style="list-style-type: none"> <li>✓ Use the product rule to expand or combine logarithms</li> <li>✓ Use the quotient rule to expand or combine logarithms</li> <li>✓ Use the power rule to simplify logarithms</li> </ul>  | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹                    | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹                   |
| LE4:<br>Applications 1   | <ul style="list-style-type: none"> <li>✓ Write a basic exponential equation from a word problem and solve for either variable</li> <li>✓ Write an exponential equation from a half-life problem and solve for either variable</li> <li>✓ Write an exponential equation from a “percent increase” word problem and solve for either variable</li> <li>✓ Write an exponential equation from a “percent decrease” word problem and solve for either variable</li> <li>✓ Write an exponential equation from a “simple interest” word problem and solve for either variable</li> </ul> | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹  | ☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹<br>☺ ☹ ☹ |

|                                |  |   |   |
|--------------------------------|--|---|---|
| <p>LE5:<br/>Applications 2</p> | <ul style="list-style-type: none"> <li>✓ Write an exponential equation from a “compound interest” word problem and solve for either variable</li> <li>✓ Write an exponential equation from a “continuously compounded interest” word problem and solve for either variable</li> <li>✓ Write an exponential equation of the basic from a “percent increase” word problem and solve for either variable</li> </ul> | <br><br> | <br><br> |
| <p>LE6:<br/>Applications 3</p> | <ul style="list-style-type: none"> <li>✓ Write an exponential equation from a “Newton’s law of cooling” word problem and solve for either variable</li> <li>✓ Given a “logistic growth” word problem, solve for either variable</li> <li>✓ Use the techniques in this unit to solve various logarithmic or exponential word problems</li> </ul>  | <br><br> | <br><br> |

Reflections:

Goals for NEXT TIME: