

Summary Chapter 6: Exponential and Logarithmic Functions

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Section 1:

Terminology

- Exponential function

Be Able To

- Evaluate exponential functions
- Find the equation of an exponential function
- Evaluate exponential functions with base e
- Use compound interest formulas
- **Apply the concepts:** Reference page 478 problems 56 - 60

Section 2:

Terminology

No additional definitions

Be Able To

- Graph exponential functions
- Find the domain of an exponential function

Section 3:

Terminology

- Logarithmic function
- Natural logarithms

Be Able To

- Convert from logarithmic to exponential form
- Convert from exponential to logarithmic form
- Evaluate logarithms
- Use the common logarithms
- Use natural logarithms
- **Apply the concepts:** Reference page 498 problems 64 - 66

Section 4:

Terminology

No additional definitions

Be Able To

- Graph logarithmic function
- Find the domain of a logarithmic function

Section 5:

Terminology

No additional definitions

Be Able To

- Use the product rule for logarithms
- Use the quotient rule for logarithms
- Use the power rule for logarithms
- Expand logarithmic expressions
- Condense logarithmic expressions
- Use the change-of-base property for logarithms

Section 6:

Terminology

- Exponential equation
- Logarithmic equation

Be Able To

- Use like bases to solve exponential equations
- Use logarithms to solve exponential equations
- Use the definition of a logarithm to solve logarithmic equations
- Use the one-to-one property of logarithms to solve logarithmic equations
- **Apply the concepts:** Reference page 536 problems 65 - 67

Section 7:

Terminology

- Exponential growth
- Exponential decay

Be Able To

- Model exponential growth and decay
- **Apply the concepts:** Reference page 550 problems 1 - 40

Section 8:

Omitted