

Precalculus

ALL TEKS :: The student is expected to...

- describe parent functions symbolically and graphically, including $f(x) = x^n$, $f(x) = 1/n x$, $f(x) = \log_a x$, $f(x) = 1/x$, $f(x) = e^x$, $f(x) = |x|$, $f(x) = ax$, $f(x) = \sin x$, $f(x) = \arcsin x$, etc.;[P.1A]
- determine the domain and range of functions using graphs, tables, and symbols;[P.1B]
- describe symmetry of graphs of even and odd functions;[P.1C]
- recognize and use connections among significant values of a function (zeros, maximum values, minimum values, etc.), points on the graph of a function, and the symbolic representation of a function[P.1D]
- investigate the concepts of continuity, end behavior, asymptotes, and limits and connect these characteristics to functions represented graphically and numerically.[P.1E]
- apply basic transformations, including a $f(x)$, $f(x) + d$, $f(x - c)$, $f(b - x)$, and compositions with absolute value functions, including $|f(x)|$, and $f(|x|)$, to the parent functions;[P.2A]
- perform operations including composition on functions, find inverses, and describe these procedures and results verbally, numerically, symbolically, and graphically[P.2B]
- investigate identities graphically and verify them symbolically, including logarithmic properties, trigonometric identities, and exponential properties.[P.2C]
- investigate properties of trigonometric and polynomial functions;[P.3A]
- use functions such as logarithmic, exponential, trigonometric, polynomial, etc. to model real-life data;[P.3B]
- use regression to determine the appropriateness of a linear function to model real-life data (including using technology to determine the correlation coefficient);[P.3C]
- use properties of functions to analyze and solve problems and make predictions[P.3D]
- solve problems from physical situations using trigonometry, including the use of Law of Sines, Law of Cosines, and area formulas and incorporate radian measure where needed.[P.3E]
- represent patterns using arithmetic and geometric sequences and series;[P.4A]
- use arithmetic, geometric, and other sequences and series to solve real-life problems;[P.4B]
- describe limits of sequences and apply their properties to investigate convergent and divergent series[P.4C]
- apply sequences and series to solve problems including sums and binomial expansion.[P.4D]
- use conic sections to model motion, such as the graph of velocity vs. position of a pendulum and motions of planets;[P.5A]
- use properties of conic sections to describe physical phenomena such as the reflective properties of light and sound;[P.5B]
- convert between parametric and rectangular forms of functions and equations to graph them[P.5C]
- use parametric functions to simulate problems involving motion.[P.5D]
- use the concept of vectors to model situations defined by magnitude and direction[P.6A]
- analyze and solve vector problems generated by real-life situations.[P.6B]

Resources :: The student is expected to...

- Resources

Test Bank :: The student is expected to...

- Unit 1
- Unit 2
- Unit 3
- Unit 4
- Unit 5
- Unit 6
- Unit 7
- Unit 8
- Unit 9
- Unit 10
- Unit 11

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- Unit 12
- Unit 13
- Unit 14
- Unit 15

Unit 1 :: The student is expected to...

- Platform
- Resources
- Teacher Notes

Unit 2 :: The student is expected to...

- Unit 2

Unit 3 :: The student is expected to...

- Unit 3

Unit 4 :: The student is expected to...

- Unit 4

Unit 5 :: The student is expected to...

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Unit 6 :: The student is expected to...

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Unit 7 :: The student is expected to...

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Unit 8 :: The student is expected to...

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Unit 9 :: The student is expected to...

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Unit 10 :: The student is expected to...

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Unit 11 :: The student is expected to...

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Unit 12 :: The student is expected to...

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Unit 13 :: The student is expected to...

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Unit 14 :: The student is expected to...

- Unit 14

Unit 15 :: The student is expected to...

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Downloads :: The student is expected to...

- Downloads

Archive 2012-2013 :: The student is expected to...

- Resources

Precalculus

- Optional Sections
- Curriculum
- Activities
- TAKS Problems
- Assessments
- Curriculum
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- TAKS Problems
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- Assessments