

Daily Agenda

Learning Target:
I can use polynomials to model real life situations.

Homework	Assessments
4.6 Worksheet	Unit 4 Test 11/14

Success is never final; failure is never fatal. It's courage that counts.
-John Wooden

Nov 15-8:24 PM

ignore #20, 25, 30, 32

28) $343 - 7(x+3)^2$

$7(49 - (x+3)^2)$

$7(7+(x+3))(7-(x+3))$

$7(10+x)(4-x)$

$343 - 7(x^2 + 6x + 9)$

$343 - 7x^2 - 42x - 63$

$-7x^2 - 42x + 280$

$-7(x^2 + 6x - 40)$

$-7(x+10)(x-4)$

Nov 10-10:51 AM

21) $x^6 + 64$

$(x^2)^3 + (4)^3$

$(x^2 + 4)(x^4 - 4x^2 + 16)$

Nov 10-10:56 AM

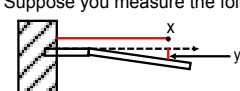
<p style="color: red;">Required</p> <p>Honors PreCalculus Or PreCalculus</p> <p style="color: blue;">Optional</p> <p>AP Computer Science AP Statistics</p>	<p style="color: red;">Honors Pre Calculus</p> <ul style="list-style-type: none"> -grade of 80% or higher -strong work ethic -ability to solve problems independently -ability to seek extra help and resources -ability to apply concepts to new situations (many questions on assessments are not clones of homework) -desire to take an honors math class -enjoys challenge of math
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Jan 6-11:01 AM

4.6 Polynomials as Mathematical Models

Diving Board Problem

When you stand on a diving board, the amount the board bends (y), below its rest position is a **cubic function of (x)**, the distance from the built-in end to the point on the board. Suppose you measure the following deflections:



x(ft)	y(thousandths of in.)
0	0
1	116
2	448
3	972

Derive the equation. The board is 10ft. long. How far does its tip sag below the horizontal?

$y = -4x^3 + 120x^2$

$y = -4(10)^3 + 120(10)^2 = 8000$ thousandths of in.

$= 8''$

Nov 15-8:30 PM

We can use our calculator to write the equation. Either with:

Augmented Matrices
Regression

x(ft)	y(thousandths of in.)
0	0
1	116
2	448
3	972

Jan 20-8:06 AM