



*MathXL<sup>®</sup> for School*  
Teacher Training Series

*MathXL<sup>®</sup> for School Overview*

## What is *MathXL*<sup>®</sup> for School?

*MathXL*<sup>®</sup> for School by Pearson Education is a comprehensive set of online instructional tools that mathematics teachers from all over the United States, Canada and abroad are using to enhance the learning experience of students from arithmetic through calculus, statistics, and other advanced math topics.

## How *MathXL*<sup>®</sup> for School Works

- A Pearson math title is chosen based on the curriculum needs of the school.
- Teachers register (one time) as a *MathXL*<sup>®</sup> for School user and then request their course materials based on the chosen title.
- Students register (one time) and enroll in the course created by their instructor for their class.
- *MathXL*<sup>®</sup> for School is designed to deliver the content and learning aids necessary to help students achieve mastery of specified Course Learning Outcomes as determined by a school's specific curriculum.

## How You Can Use *MathXL*<sup>®</sup> for School

- Simplest Application: Create a course based on the chosen title, selecting only the desired Learning Outcomes; use the auto-created Study Plan to allow students to practice the chosen outcomes while having access to a broad array of rich multi-media content and learning aids; retrieve and track student performance data using the gradebook.
- Customized Application: Choose any or all of these: Instructor created class specific assignments including homework, quizzes, or tests; customized algorithmic or static exercises; complete online gradebook, including adding scores for offline assignments.

# A Title for All Needs



## Objective Based Learning

- All titles come with generous question banks based on all learning objectives of the book selected.
- Teachers choose items to be included on homework, quizzes, or tests.
- Questions are algorithmically generated and may be assigned multiple times to create even more items per objective.

# Easy Creation of Objective Driven Assignments

Hide Navigation Buttons

My Courses

Student

Course Home

Calendar

Homework and Tests

Results

Study Plan

Instructor

Course Manager

Announcement Manager

HW & Test Manager

Gradebook

## New Homework

Legend

1 Start 2 Add/Review Content 3 Choose Settings

**Name** Review of Hyperbolas

**Book** Demana: Precalculus: Graphical, Numerical, Algebraic, 7e

**Chapter** 8. Analytic Geometry in Two and Three Dimensions

**Section** Section 8.3: Hyperbolas

**Objective** All Objectives

**Available Questions**

Question	Description
<input type="checkbox"/> 8.3.5	Analyze hyperbolas.
<input type="checkbox"/> 8.3.9	Graph hyperbolas.
<input type="checkbox"/> 8.3.11	Find equations of hyperbolas.
<input type="checkbox"/> 8.3.13	Solve application problems.
<input type="checkbox"/> 8.3.15	
<input type="checkbox"/> 8.3.17	
<input type="checkbox"/> 8.3.19	
<input type="checkbox"/> 8.3.25	
<input type="checkbox"/> 8.3.27	

Choose questions on the left and click Add to include them in this assignment.

[View question details](#) Questions on homework: 0  
Points on homework: 0

Your book

Chapter

Section

Objectives

8.3.19 indicates that this exercise will be similar to #19 in Chap. 8, Sec. 3

# Modes of *MathXL*<sup>®</sup> for School

## *MathXL*<sup>®</sup> for School Learning Mode

### **Assignments Categorized as Homework**

- Not timed since some students may need more or less time depending on their mathematical background and need to access learning aids.
- May be entered and exited as often as necessary during the assigned time period as determined by the instructor. Work completed is saved each time. Students can re-enter to finish incomplete items.
- Students have access to multiple learning aids as selected by the teacher.
- Study Plan can also be used for Learning/Practicing Course Objectives.

# Learning Aids in *MathXL*<sup>®</sup> for School

# Help Me Solve This

## Homework: Factoring Polynomials

Exercise Score: 0 of 1 pt    Assignment Score: 0% (0 of 100 pts)    0 of 100 complete

Exercise 6.4.63

Factor the following.

$$4x^3 - 4$$

$$4x^3 - 4 = \square$$

(Type P if the polynomial is prime.)

Help Me Solve This

Help Me Solve This

Factor the following.

$$4x^3 - 4$$

**Difference of Two Cubes**

$$a^3 - b^3 = (a - b)(a^2 + ab + b^2)$$

To obtain the difference of two cubes within  $4x^3 - 4$ , first factor out the GCF.

$$4x^3 - 4 = \square$$

**Students are guided step-by-step through the given exercise**

# View An Example

## Homework: Factoring Polynomials

Exercise 6.1.31

Exercise Score: 0 of 1 pt    Assignment Score: 0% (0 of 100 pts)    0 of 100 complete

Complete the factoring.

$$12b^2 - 10b = 2b( \quad )$$
$$12b^2 - 10b = 2b( \square )$$

Help Me Solve This  
View an example

View an Example

Complete the factoring.

$$26p^2 - 8p = 2p( \quad )$$

Note that  $2p$  is a factor of both  $26p^2$  and  $8p$ . Determine what you would multiply by  $2p$  to get  $26p^2 - 8p$ .

The GCF,  $2p$ , is already given. Find the missing factors.

$$26p^2 - 8p = 2p(13p) - 2p(4)$$

Now use the distributive property.

$$2p(13p) - 2p(4) = 2p(13p - 4)$$

The complete factorization of  $26p^2 - 8p$  is  $2p(13p - 4)$ .

The example is similar to the problem the student is trying to solve.

# Video Tutorial Assistance

## Homework: Factoring Polynomials

Overview

<< < 51 52 53 54 55 56 57 58 59 60 >> >>

Exercise 6.4.69

Exercise Score: 0 of 1 pt

Assignment Score: 0% (0 of 100 pts)

0 of 100 complete

Factor completely.

$$r^3 - 64$$

$$r^3 - 64 = \square$$

(Type P if the expression is prime.)



Help Me Solve This

View an example

Video

Ask My Instructor

Print

http://spider.mathxl.com - Quicktime Movie - S...

Factor the binomial completely.

$$a^3 - 1$$

$$a^3 - 1^3$$



Enter any number or expression in the edit field, then click Check Answer. ?

All parts showing

Clear All

Check Answer

Save

Done

Internet

# Links to Textbook Pages

## 8.4 Area of a Triangle

**Objective:** Find the Area of SSS Triangles

Navigation: 11 12 13 14 15 16 17 18 19

Exercise 8.4.19

0 correct | 0 of 19 complete

Find the area  $A$  of the triangle specified below.

$$a = 25, b = 7, c = 24$$

The area  $A$  is  square units. (Type an integer.)

Help Me Solve This

View an example

Textbook



Sullivan/Sullivan, III

## Precalculus Enhanced with Graphing Utilities, 5e

8 Applications of Trigonometric Functions: 8.4 Area of a Triangle

Back

541

Forward

Contents

### 2 Find the Area of SSS Triangles

If the three sides of a triangle are known, another formula, called **Heron's Formula** (named after Heron of Alexandria), can be used to find the area of a triangle.

**THEOREM**

#### Heron's Formula

The area  $K$  of a triangle with sides  $a$ ,  $b$ , and  $c$  is

$$K = \sqrt{s(s-a)(s-b)(s-c)} \quad (5)$$

where  $s = \frac{1}{2}(a + b + c)$ .

A proof of Heron's Formula is given at the end of this section.

# Interactive Animations

The screenshot shows a software interface for a math exercise. At the top, a navigation bar includes page numbers 1 through 9, with '4' highlighted. The exercise title is 'Exercise 3.2.41'. Below this, the user's progress is shown: 'Exercise Score: 0 of 1 pt', 'Assignment Score: 0% (0 of 9 pts)', and '0 of 9 complete'. The main task is to graph the equation  $4x + 5y = -20$ . A grid is provided for graphing. On the right, there are buttons for 'Help Me Solve This', 'View an example', and 'Animation'. A red arrow points from the 'Animation' button to a pop-up window titled 'Graphing Linear Equations'. This window contains instructions: 'Drag the points for the ordered pairs to the correct places on the graph.' It features a coordinate plane with a red dot at (0, 2) and a green dot at (3, 1). Below the graph is the equation  $y = -\frac{1}{3}x + 2$  and a table of ordered pairs.

Exercise Score: 0 of 1 pt    Assignment Score: 0% (0 of 9 pts)    0 of 9 complete

Graph.  
 $4x + 5y = -20$

Use the graphing tool on the right to graph the equation.

Click to enlarge graph

Help Me Solve This  
View an example  
Animation

<http://spider.mathxl.com/Student/MediaPopup.aspx?type=animation&loc=Anim1@carson0402/0402.html&...>

### Graphing Linear Equations

Page 3 of 4

Drag the points for the ordered pairs to the correct places on the graph.

$y = -\frac{1}{3}x + 2$

x	y	ordered pair
0	2	(0, 2) ●
3	1	(3, 1) ●

# Ask My Instructor

## Homework: Factoring Polynomials

Overview

Exercise 6.4.63

Exercise Score: 0 of 1 pt    Assignment Score: 0% (0 of 100 pts)    0 of 100 complete

Factor the following.

$$2x^3 - 128$$

$$2x^3 - 128 = \square$$

(Type P if the polynomial is prime.)

Help Me Solve This

View an example

Video

Ask My Instructor

Print

http://spider.mathxl.com - Ask My Instructor - Sandee House - ...

Ask My Instructor

Legend

To: shouse@gpc.edu

From: Sandee House

Section 6.4, Question: 6.4.63

Factor a sum or difference of cubes.

Enter a question or comment to send. (A link to the question will be included with your message.)

Enter any number or expression in the edit field, then click Check Answer. ?

All parts showing

Clear All

Check Answer

Save

**Students enter a question or comment here. Instructors receive an email with the comment and a link to that exercise. The instructor will be able to see any response that the student may have entered.**

# Homework “hints” when students enter equivalent answers that are not in the correct form

## Homework: Factoring Binomials: Sum/Difference of Cubes

Exercise Score: 0 of 1 pt      Assignment Score: 0% (0 of 10 pts)      0 of 10 complete

Exercise 4.5.30

Factor using the formula for the sum or difference of two cubes.

$24x - 3x^4$

$24x - 3x^4 = 3x(8 - x^3)$

**⊗ Sorry, that's not correct**

Although your answer is equal to the correct answer, it is not in the correct form. Be sure to read any instructions given in the problem. If there are no special instructions, make sure your answer is fully simplified.

Done

Enter any number or expression in the edit field, then click Check Answer. ?

All parts showing      Clear All      Check Answer      Save

Help Me Solve This  
View an example  
Ask My Instructor  
Print

# Algorithmically Generated Questions

The image displays two overlapping screenshots of a math software interface. The top screenshot, labeled "STUDENT A's Exercise", shows a homework assignment titled "Graphing Linear Equations". The exercise number "2" is circled in red. The equation to be graphed is  $y = 2x + 2$ , also circled in red. The interface includes a calculator on the left, a graphing grid on the right, and buttons for "Help Me Solve This" and "View an example". The bottom screenshot, labeled "STUDENT B's Exercise", shows a similar homework assignment. The exercise number "2" is circled in red. The equation to be graphed is  $y = 3x + 5$ , also circled in red. This interface also features a calculator, a graphing grid, and help buttons. Red arrows point from the circled exercise numbers in the top screenshot to the circled exercise numbers in the bottom screenshot, and from the circled equation in the top screenshot to the circled equation in the bottom screenshot.

**STUDENT A's Exercise**

MathXL for School

Homework: Graphing Linear Equations

Exercise Score: 0 of 1 pt    Assignment Score: 0% (0 of 4 pts)    0 of 4 complete

Graph the equation.

$y = 2x + 2$

Use the graphing tool on the right to graph the line.

Click to enlarge graph

Exercise 3.2.23

Help Me Solve This

View an example

**STUDENT B's Exercise**

MathXL for School

Homework: Graphing Linear Equations

Exercise Score: 0 of 1 pt    Assignment Score: 0% (0 of 4 pts)    0 of 4 complete

Graph the equation.

$y = 3x + 5$

Use the graphing tool on the right to graph the line.

Click to enlarge

Exercise 3.2.23

# Immediate Feedback for Students and Automatic Grading for Teachers

## Homework: Factoring Binomials: Sum/Difference of Cubes

Exercise Score: 0 of 1 pt      Assignment Score: 0% (0 of 10 pts)      0 of 10 complete

Factor using the formula for the sum or difference of two cubes.

$$24x - 3x^4$$

---

$$24x - 3x^4 = 3x(2 - x)(x^2 + 2x + 4)$$

✔ Excellent!

OK

Enter any number or expression in the edit field, then click Check Answer. ?

All parts showing

Clear All      Check Answer      Save

Exercise 4.5.30

Help Me Solve This  
View an example  
Ask My Instructor  
Print

1 2 3 4 5 6 7 8 9 10

More

# Learning Aids are also available inside a student's automatically generated Study Plan

**My Courses**

**Student**

- Course Home
- Calendar
- Homework and Tests
- Results
- Study Plan**

**Instructor**

- Course Manager
- Announcement Manager
- HW & Test Manager
- Gradebook

## Study Plan

Click a chapter below to start practicing, or follow these steps to create a personalized study plan.

- 1 Take a [sample test](#) or an [assigned test or quiz](#). Then return to this page.
- 2 Practice the topics you need to study( ).
- 3 To prove mastery( ), take another [sample test](#) or an [assigned test or quiz](#).

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Show All Show What I Need to Study

### Book Contents for All Topics

- + [Ch 1: The Real Number System](#)
- + [Ch 2: Linear Equations and Inequalities in One Variable](#)
- + [Ch 3: Linear Equations and Inequalities in Two Variables; Functions](#)
- + [Ch 4: Systems of Linear Equations and Inequalities](#)
- + [Ch 5: Exponents and Polynomials](#)
- [Ch 6: Factoring and Applications](#)

- + [6.1 The Greatest Common Factor; Factoring by Grouping](#)
- [6.2 Factoring Trinomials](#)

- ▶ [Factor trinomials with a coefficient of 1 for the squared term.](#)
- ▶ [Factor trinomials with two variables.](#)
- ▶ [Factor such trinomials after factoring out the greatest common factor.](#)

## *MathXL*<sup>®</sup> for School Assessment Mode

### **Assignments categorized as Tests or Quizzes**

- Instructors may set a time limit or allow students unlimited time.
- Although the instructor may allow students multiple attempts of the assessment, the test or quiz must be completed and submitted in its entirety each time. Re-entering means starting the assessment over from the beginning with regenerated numerical values.
- Some or all Learning Aids may be included or turned off.

# Assessment Mode

Quiz: Quiz: Graphing Lines Overview

1 2 3 4 5 6 7 8 9 10

This Question 1 pt This Test 20 pts Time Remaining 00:59:26 0 of 20 complete

Complete the table of values for the equation  $4x + 3y = 96$ .

x	y
0	<input type="text"/>
<input type="text"/>	0
3	<input type="text"/>

(Simplify your answers. Type an integer or a fraction.)

Enter any number or expression in each of the edit fields, then click Next or Previous Question. ?

Previous Next Submit

**Select Learning Aids:**

- Help Me Solve This
- View an Example
- Video
- Animation
- Textbook
- Ask My Instructor

**All settings determined by the teacher... including whether or not to include some or all Learning Aids during an assessment (test or quiz)**

# Algorithmically Generated Exercises

- Reduces Cheating
- Increases Student to Student dialogue

Quiz: Quiz: Graphing Lines

This Question: 1 pt This Test: 20 pts Time Remaining: 00:59:03 0 of 20 complete

Graph the equation.

$$y = \frac{3}{2}x - 3$$

Use the graphing tool on the right to graph the line.

Click to enlarge graph

Questions change each time the assessment is accessed.

Quiz: Quiz: Graphing Lines

This Question: 1 pt This Test: 20 pts Time Remaining: 00:57:32 0 of 20 complete

Graph the equation.

$$y = \frac{1}{2}x + 2$$

Use the graphing tool on the right to graph the line.

Click to enlarge graph

Delete ? Clear

## Ways to Use *MathXL*<sup>®</sup> for School

- Supplemental instruction and practice for students in traditional classes.
- Remediation for students who lack prerequisite skills or who get behind in the content due to slower learning rate or personal circumstances.
- Acceleration or Enrichment for students who work faster or who have previous knowledge of the content.
- Deliver content, assignments, and assessments for students in fully online classes.

## Other Models of Use for *MathXL*<sup>®</sup> for School

For more examples of how your school can use

*MathXL*<sup>®</sup> for School, please visit

[http://www.MathXLforSchool.com/support/school/use\\_models.html](http://www.MathXLforSchool.com/support/school/use_models.html)

## Support

Get answers to frequently asked questions and find out how to contact us.

▶ [Teacher Support](#)

▶ [Student Support](#)

▶ [IT Admin Support](#)

**Set up your computer for running your MathXL for School course:**

▶ [MathXL for School Browser Check or Installation Wizard](#)

### ADDITIONAL RESOURCES

Helpful information on using MathXL for School can also be found in the following sections:

▶ [Getting Started](#)

▶ [Take a Tour](#)

Online help is also available from within your course.

Thank you for attending the *MathXL® for School* Teacher Training Series. If you have any questions about anything in this presentation, please visit [www.MathXLforSchool.com](http://www.MathXLforSchool.com) and select the Support tab.