

SkillsCommons Makeover: Improving the Design, Interactivity, and Integrity of Assessments

Contributor:	Air Washington
Collection:	Aerospace College Readiness, Pre-employment, and Assembly
Material:	Applied Math / Algebra Laws Overview
Item:	Check Your Understanding Introduction to Algebra.pdf
	ion of a quiz from static to dunamic format with improved canabilities for accessing student

MAKEOVER: Conversion of a quiz from static to dynamic format with improved capabilities for assessing student learning.

Original material was uploaded to Skills Commons as a PDF. While the PDF was a separate file, it was contained in a ZIP package of 900MB; the PDF contributing only 617KB.

In the absence of a PDF editor such as Adobe Acrobat Pro (commercial product), all one can do is print this file or reference it as is. If printed, the material can be changed through literal cut and paste.

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	Quiz: Check Your Understanding: Introduction to Algebra	Page 1 of 6
	Check Your Understanding: Introduction to Algebra Started. Jun 2 at 1.49pm Quiz Instructions	
	Question 1	1 pts
	Using the distributive property, expand and simplify $x\left(y^2+5 ight)$	
	$A_{xy}^{2} + 5$	
	$B \cdot xy^2 + x$ $C \cdot x + y^2 + 5x$	
	$0.xy^2 + 5x$	
	Question 2	1 pts
	Using the distributive property, expand and simplify	
	$A = 2\Pi (r^2 + rh)$ A $A = 2\Pi + r^2 + rh$	
	$\mathbf{B}_{\cdot}A = 2\Pi r^2 + 2\Pi rh$	
	C : $A = 2\Pi + r^2 + 2\Pi rh$ D : $A = 2\Pi r^2 + rh$	



The PDF packaging does NOT allow the following:

- Edit question text
- Add text to speech
- Omit or add questions
- Reorder questions, including randomly
- Easily add institutional branding
- Machine grade questions; change the point values
- Send grades to a Learning Management System (LMS) grade book
- Use the quiz in a native LMS assessment system
- Allow for self-testing or for multiple attempts with feedback

Over time, Skills Commons will address the following:

- Easily discover material in the repository
- Easily share a question or the whole quiz group via a repository search
- Associate the quiz with curriculum standards metadata

If the quiz was available as, say, a Microsoft Word[®] document, it would be easy to:

- Edit question text
- Add text to speech
- Omit or add questions
- Easily add institutional branding

Rewriting the assessment as a SoftChalk Lesson offers the complete flexibility outlined above. For example, here we see the equation editor. Note the edit control where a textual description can be provided for greater accessibility.

00	0				Equ	ation E	ditor							
File	Edit	Insert	Propertie	s Preference	es Help	C								
°√□	Ξõ	(0) [0]	$\measuredangle \theta \sin_{\star} \int \frac{d}{dx}$		↓ ÷×	<>_	$\in \subset_{_{\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	∀∃	$\alpha \gamma_{t}$	ΓΛ	a∏b	1	\checkmark	?
<i>x(y</i>	² +5)												
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					ок		Cancel							



A variety of question types are possible, in the following case, a multiple-choice type lists different solution candidates. Note that specifying which is the correct answer allows the test to be machine-graded.

	QuizPopper, Multiple Choice	
	CAA Feedback Individual Feedback Hint Option	s Metadata
The question		
Using the distributive property, exp	and and simplify	
$x(y^2+5)$		
1		
Enter answer choices, select correct ar		
unar enamer crivices, aerec correct en		
	$xy^2 + 5$	
	a.	0
	$xy^2 + x$	
	b.	0
	Delete Question Delete Answers	
	Delete Question Delete Answers	

Note you can add overall feedback or per-question feedback. This kind of interactivity is, of course, more immediate than awaiting for a test to be graded and returned.

Q & A	Feedback		Feedback	Hint	Options	Metadata
Feedback fo	r right answer					
Right! Goo	d job!					
eedback fo	r wrong answe	er —				
Sorry, inco	rrect answer.					
	rrect answer.					
Sorry, inco Dptional —		Show correc	t answer wi	th feedba	ack.	
		Show correc			ack. Feedback	



Questions can include an optional hint. Questions can be assigned different point values and multiple-attempts can be allowed.

O QuizPopper, Multiple Choice	O O O QuizPopper, Multiple Choice
Q & A Feedback Individual Feedback Hint Options Metadata	Q & A Feedback Individual Feedback Hint Options Metadata
Show button to display hint	Open question with Quiz Me Self Check Test Yourself Text only Question 1 Restore Default Text Options
	Points: 1 + Allow retry Allow partial credit
	Format:
Delete Hint	 Hide question Show question
OK Cancel	OK Cancel

Additionally, the question can be described with a variety of metadata, including curriculum standards.

00	Metao	data		
Keywords & Details Subjects & Leve	ls Curriculum	Standards Acces	ssibility Accessibility continued	_
Creator / Author	1 Г	Additional		
First name:		Title:		
Last name:				
Description		Material Type:	Tutorial 🗍	
		Audience:	Unspecified +	
		Creative Commons:	Attribution Share Alike	
Keywords / Phrases		Other Contributor:	None	
Enter keywords or phrases, one per line, up to 10 lines.		Second resource:	None	
		Relation:	None	
Coverage		Publisher:	SoftChalk	
Describe the spatial and/or temporal				
characteristics of the lesson content.		Cost:	None	
		Version:	1.0	
		All 1-6	on on this tab meets the Dublin Core standards.	
		All Informati	on on this tab meets the Dublin Core standards.	
	ок	Cancel		



	Keywords & Details	Subjects & Levels	Curriculum Standards	Accessibility Accessibility continued
		Achievement	Standards Network Oth	er Standards
elected Standar	rds			Item Details
Inderstand that	polynomials form a syste	em analogous to the in	tegers, namely, they	Region:
				Washington
				URI/GUID:
				http://asn.jesandco.org/resources/S2413033
				Description:
				Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.
				Click 'Select ASN Standards' at the bottom left to select Curriculum Standard(s) for your lesson.
				Use the link below if you want to learn more about
			1	the Achievement Standards Network.
S	elect ASN Standards	Remove Selec	tion(s)	Achievement Standards Network
		Include Curriculu	m Standards page with les	son (link in sidebar)

Questions can be stored in a library for easy reuse, publishing to a hosted sharing website, or arranged into a group of questions to be taken together. One virtue of the group is that questions can be presented in random order, allowing each student to take the quiz, but in a different sequence. As with the individual questions, the group can be described with metadata and also shared widely.

000		SoftChalk Library
Library —		Selection Quiz Pools Options How To
•	Library Introduction to Algrebra Check 20 Introduction to Algrebra Check 19 Introduction to Algrebra Check 18 Introduction to Algrebra Check 17 Introduction to Algrebra Check 16 Introduction to Algrebra Check 16 Introduction to Algrebra Check 11 Introduction to Algrebra Check 12 Introduction to Algrebra Check 12 Introduction to Algrebra Check 11 Introduction to Algrebra Check 12 Introduction to Algrebra Check 8 Introduction to Algrebra Check 13 In	Selection Name: Library Description: Save Edits Metadata View Delete New Folder Publish Export Import Insert Into Lesson
		Close



Quiz Group Options Quiz Pools How To	Questions in Group	
Group Options	Question	Points
	noice Solve for y given c=5 and d=20	1
Display Questions: All at once One at a time 	noice Solve for c. [inserted object]	1
✓ Random order	noice Given the equation: [inserted object]	1
Display Group: 💿 Hide 🔘 Show	noice Solve for the current, I, give	1
Feedback: Detailed Summary 	voice What is the volume of a sphere	1
Options: 🗌 Allow retry 🗹 Show border	noice What is the volume of a sphere	1
	ver Evaluate the expression when x	1
Open Quiz Group with	/er Evaluate the expression when x	1
	ver Evaluate the expression when c	1
Quiz Group image Text only	noice If possible, simplfy the follo	1
Show/hide quiz group	/er Simplfy the following expressi	1
Restore Default Text	ver Simplfy the following expressi	1
	noice Using the order of operations,	1
	noice Using the order of operations,	1
	noice Using the oder of operations,	1
	noice Rewrite [inserted object]	1
	ver Evalue the expression	1
	ver Evaluate the expression	1
	voice Using the distributive propert	1
	noice Using the distributive propert	1
	Modify Delete]



What follows is an example of the questions as they are rendered in a browser for the student, including the feedback.

Que	stion 1
Value:	1
Using	the distributive property, expand and simplify
$x(y^2)$	(+5)
0	$xy^2 + 5$
\bigcirc	$xy^2 + x$
	$x + y^2 + 5x$
•	$xy^2 + 5x$
	Check Answer
Righ	t! Good job!
Poin	ts scored this item: 1
X Que	
Value:	
Value:	1
Value: Using t A = 2 \odot a	1 the distributive property, expand and simplfy $2\Pi \left(r^2 + r\hbar\right)$ a. $A = 2\Pi + r^2 + r\hbar$
Value: Using $A = 2$ $\bigcirc a$	the distributive property, expand and simplfy $2\Pi (r^2 + r\hbar)$ $A = 2\Pi + r^2 + r\hbar$ $A = 2\Pi r^2 + 2\Pi r\hbar$
Value: Using $A = 2$ a = 2	the distributive property, expand and simplfy $2\Pi (r^2 + r\hbar)$ $A = 2\Pi + r^2 + r\hbar$ $A = 2\Pi r^2 + 2\Pi r\hbar$ $A = 2\Pi + r^2 + 2\Pi r\hbar$
Value: Using $A = 2$ a = 2	the distributive property, expand and simplfy $2\Pi (r^2 + r\hbar)$ $A = 2\Pi + r^2 + r\hbar$ $A = 2\Pi r^2 + 2\Pi r\hbar$
Value: Using $A = 2$ a = 2	the distributive property, expand and simplfy $2\Pi (r^2 + r\hbar)$ $A = 2\Pi + r^2 + r\hbar$ $A = 2\Pi r^2 + 2\Pi r\hbar$ $A = 2\Pi + r^2 + 2\Pi r\hbar$
Value: Using $A = 2$ 0 $a0$ c	the distributive property, expand and simplfy $2\Pi(r^2 + r\hbar)$ $A = 2\Pi + r^2 + r\hbar$ $A = 2\Pi r^2 + 2\Pi r\hbar$ $A = 2\Pi r^2 + 2\Pi r\hbar$ $A = 2\Pi r^2 + r\hbar$
Value: Using $A = 2$ a = 2 a = 2	the distributive property, expand and simplfy $2\Pi \left(r^{2} + rh\right)$ $A = 2\Pi + r^{2} + rh$ $A = 2\Pi r^{2} + 2\Pi rh$ $A = 2\Pi r^{2} + 2\Pi rh$ $A = 2\Pi r^{2} + rh$ Check Answer
Value: Using : A = 2 • t • t • c • c • c • c	the distributive property, expand and simplfy $2\Pi \left(r^{2} + rh\right)$ $A = 2\Pi + r^{2} + rh$ $A = 2\Pi r^{2} + 2\Pi rh$ $A = 2\Pi r^{2} + 2\Pi rh$ $A = 2\Pi r^{2} + rh$ Check Answer y, incorrect answer.

The quiz can be presented as a navigable web site, including institutional branding, a license statement, and a separate listing of curriculum standards.



SoftChalk CLOUD	f Tomcat Kanbanchi SSL-Related Blackboard Lear Page 2	n Contrortal CalStat
Air 🕘 Washington	Introductio	
Page: 1 2		score print
V Question_1		Curriculum Stars
Value: 1		
Using the distributive property, expand and simplify		
$x(y^2+5)$		
○a.x) ² +5		
$\bigcirc \mathbf{b}_{xy^2+x} \\ \bigcirc \mathbf{c}_{x+y^2+5x} $		
\odot d. $xy^2 + 5x$		
Check Answer		
Right! Good job!		
Points scored this item: 1		
Subside 2		
Using the distributive property, expand and simplify		
$A = 2\Pi \left(r^2 + r\hbar \right)$		
\bullet a. $A = 2\Pi + r^2 + rh$		
• • $A = 2\Pi + r^2 + r\hbar$ • • $A = 2\Pi r^2 + 2\Pi r\hbar$ • • $A = 2\Pi r^2 + 2\Pi r\hbar$		
$ \begin{array}{c} \bigcirc \mathbf{k}, A = 2\Pi r^2 + 2\Pi rh \\ \bigcirc \mathbf{c}, A = 2\Pi + r^2 + 2\Pi rh \\ \bigcirc \mathbf{d}, A = 2\Pi r^2 + rh \\ \hline \end{array} $ $ (Check Asseer) $		Score
$ \overset{\bigcirc \mathbf{b}}{=} A = 2\Pi r^2 + 2\Pi rh \overset{\bigcirc \mathbf{c}}{=} A = 2\Pi + r^2 + 2\Pi rh \overset{\bigcirc \mathbf{d}}{=} A = 2\Pi r^2 + rh $		Score: 1/40
$ \begin{array}{c} \bigcirc \mathbf{e}_{A} = 2\Pi r^{2} + 2\Pi rh \\ \bigcirc \mathbf{e}_{A} = 2\Pi + r^{2} + 2\Pi rh \\ \bigcirc \mathbf{d}_{A} = 2\Pi r^{2} + rh \\ \hline \end{array} \\ \hline \begin{array}{c} & \text{Creck Answer} \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \textbf{Sory, incomet answer.} $		Score:
$ \begin{array}{c} \bigcirc \mathbf{b}, A=2\Pi D^{2}+2\Pi D h \\ \bigcirc \mathbf{c}, A=2\Pi +r^{2}+2\Pi r h \\ \bigcirc \mathbf{d}, A=2\Pi D^{2}+r h \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \operatorname{Creck Answer} \\ \end{array} \\ \hline \end{array} \\ \hline \\ \operatorname{Sorry, incorrect response: b} \end{array} $		Score:
$ \begin{array}{c} \bigcirc \mathbf{b}, A=2\Pi D^{2}+2\Pi D h \\ \bigcirc \mathbf{c}, A=2\Pi +r^{2}+2\Pi r h \\ \bigcirc \mathbf{d}, A=2\Pi D^{2}+r h \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \operatorname{Creck Answer} \\ \end{array} \\ \hline \end{array} \\ \hline \\ \operatorname{Sorry, incorrect response: b} \end{array} $		Score:
$ \begin{array}{c} \bigcirc \mathbf{b}, A=2\Pi b^2+2\Pi h \\ \bigcirc \mathbf{c}, A=2\Pi + c^2+2\Pi h \\ \bigcirc \mathbf{c}, A=2\Pi b^2 + ch \\ \bigcirc \mathbf{d}, A=2\Pi b^2 + ch \\ \hline \hline \\ \hline $		Score:
$ \begin{array}{c} \bigcirc \mathbf{b}, A=2\Pi D^{2}+2\Pi D h \\ \bigcirc \mathbf{c}, A=2\Pi +r^{2}+2\Pi r h \\ \bigcirc \mathbf{d}, A=2\Pi D^{2}+r h \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \operatorname{Creck Answer} \\ \end{array} \\ \hline \end{array} \\ \hline \\ \operatorname{Sorry, incorrect response: b} \end{array} $		Score:

○ ○ curriculum_standards.html 2 ²								
< ▶	🕙 file:///Use	ers/jeffreykahn/Client	s/CSU/TAACCCT/Air%20W	ashington/Intr	oduction%20to	0%20Algebra/Check	_Your_U C	Reader O
💭 🎹 Verbena Moodle	Bb Open Ed	Bb Partner Cloud QA	Bb Partner Cloud Tomca	t Kanbanchi	SSL-Related	Blackboard Learn	CoolForEd	CalState Bb >>>
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