

GEO4D project

parameterized exercises



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Advanced Moodle: Quizzes & Parameterized exercises



1

Environmental impact of the human activity on the
'kshop

Edit ▾ 

Environmental impact of the human activity on the
'kshop

Edit ▾ ☒










Edit ▾ ☒



+ Add an activity or resource

2



- ☐  HotPot
- ☐  Lesson
- ☒  Quiz
- ☐  SCORM package
- ☐  Survey
- ☐  Turnitin Assignment 2
- ☐  Virtual programming lab
- ☐  Wiki
- ☐  Workshop

RESOURCES

- ☐  Book

Add


Cancel

grade is recorded in the gradebook.

The teacher can choose when and if hints, feedback and correct answers are shown to students.

Quizzes may be used

- As course exams
- As mini tests for reading assignments or at the end of a topic
- As exam practice using questions from past exams
- To deliver immediate feedback about performance
- For self-assessment

 [More help](#)



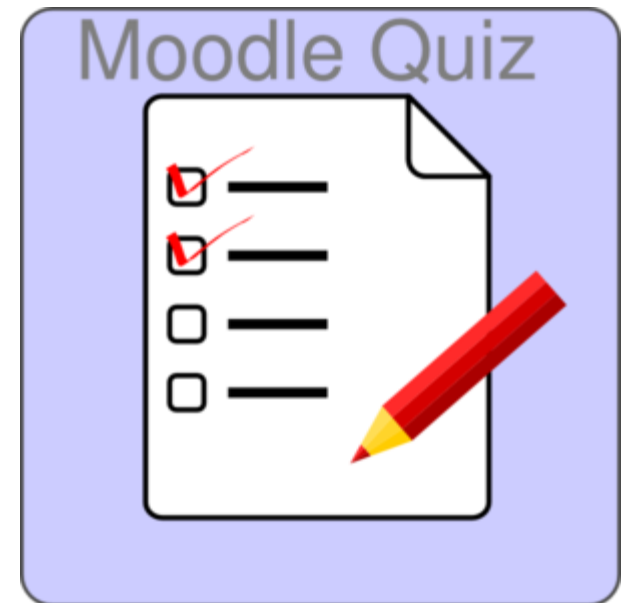
The **Quiz** activity module allows the teacher to design and build quizzes consisting of a large variety of [Question types](#).

Quiz engine is...

- Powerful
- Flexible

Quizzes are useful for **monitoring and diagnosing** student performance with certain types of knowledge. → Help with evaluation.

Using this tool effectively can **boost** your **course's effectiveness**, and promote student performance, **while decreasing the teacher's work !**





A case study...

The students come from the high school without understanding very well the various ways of measuring an angle (Degrees, Radians, Gradians) neither using several simple trigonometric functions (COS, ACOS, COSH, COS^{-1} , SIN,...) and they also do not know how to handle a hand calculator (i.e. the classic Casio FX82)...

But...

This is not an University Issue!

We cannot spend time in so basic knowledge!



Solution: A parameterized, automatic, random Quiz in Moodle.

Extremely good results. **Let's try it.** It will help with some concepts of the session.

How are the quizzes?

Let's try one...



Go to www.ariadna.unileon.es

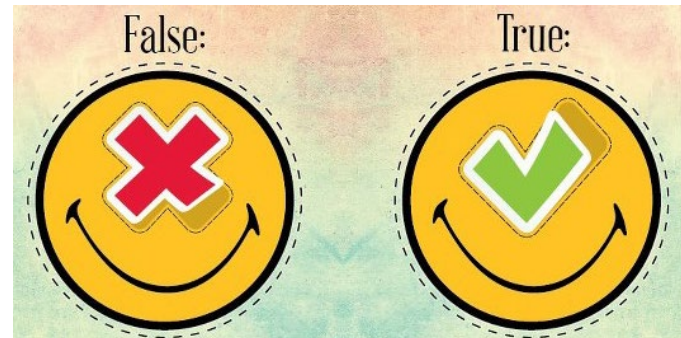
- Geoweb_Workshop
- S3. Adv...
- Click on *Do you know how to use your calculator?*

Play the Quiz.

You need a *scientific* calculator (Calc in Windows or Android Calc is O.K.)

- Please, read the description.
- Please, solve the exam.

Don't worry if you don't know how to correctly answer it. !!!



(Sorry if there is a mistake: It has been done specifically for this course.)



Creating a Parameterized Quiz

Creating a new quiz is a three-step process.

- In the first step, you create **the questions**. It's convenient to manage a bank of questions...
- In the second step you **create the quiz activity** and set its options which specify the rules for interacting with the quiz.
- In the third step you **add the questions** to the quiz.

Let's create a Quiz! → 1st, go to the Question Bank



Question Bank

- Yow need to be a teacher; Change Role!
- Switch role to Professor



es in teaching and learning in geodesy education: active

ie learning

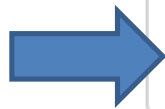
ez Taboada

what can we do. Managing courses and tasks. On-line onnaires.

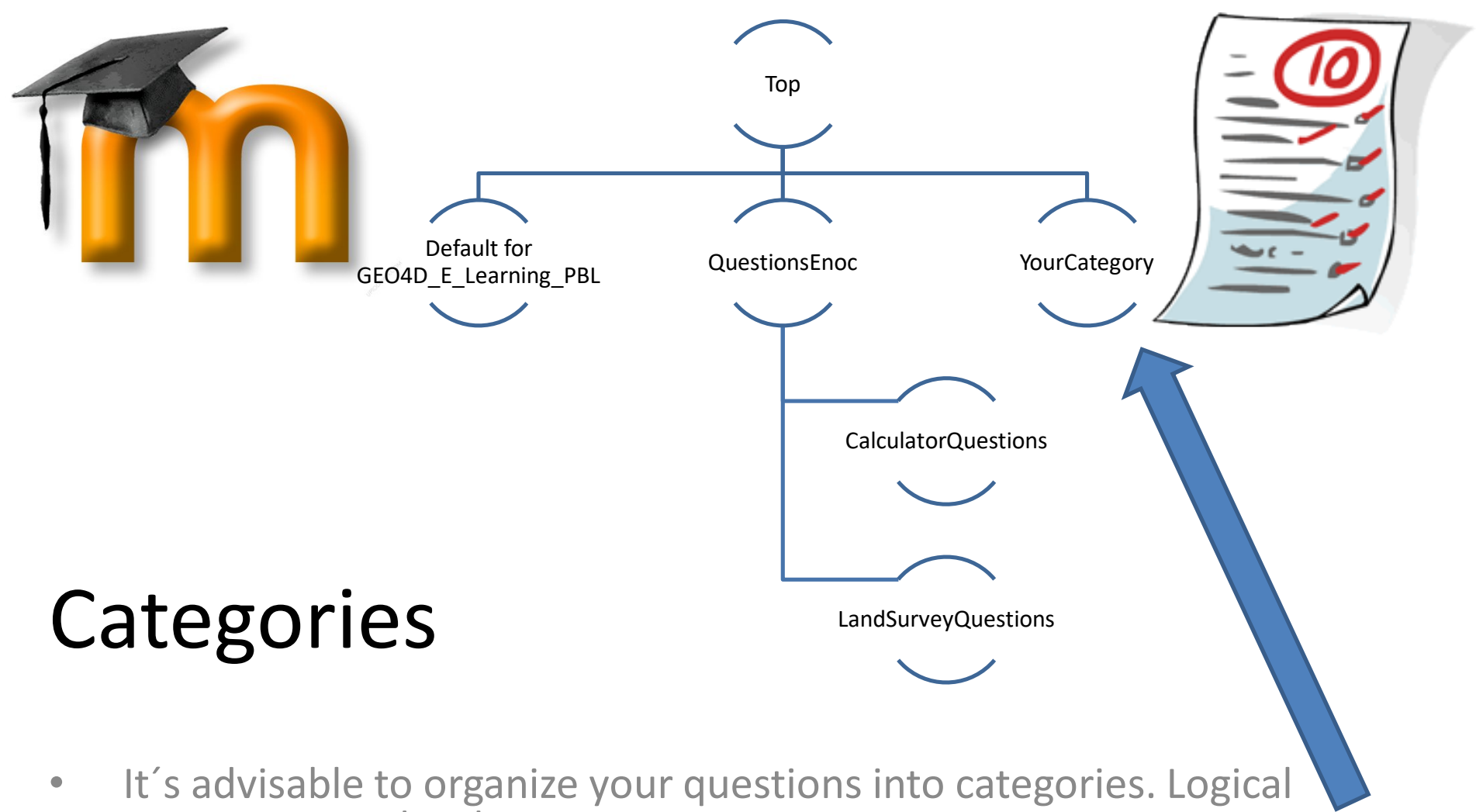


Question Bank

- You need to be a teacher; Change Role before!
- Each question bank is associated with a course.
- It is possible to export the questions to other course.
- It's in the administration panel
- Open the bank: you have questions, categories and import/export



The screenshot shows a Moodle course page. The top navigation bar includes links for 'Radio', 'Recibidos', 'Bienvenid', 'Google Tr', 'moodle q', and 'Building'. The address bar shows the URL 'https://ariadna.unileon.es/course/view.php?id=508'. The page title is 'Geoweb: WP 6.1. Workshop on e-learning and PBL (Problem-Based Learning) pedagogy'. The main content area is divided into two columns. The left column lists course modules: '55. Other tools and WEB resources for on-line lear...', '56. Problem Based Learning basics: when learning b...', '57. Moving towards PBL in Land Surveying education...', '58. PBL in Land Surveying education: experiences w...', and '59. Setting up a PBL course: review and discussion.' Below these are links for 'ispolistram' and '2ProInv'. The right column shows course settings: 'Course homepage - Course setting', 'Basic Moodle 2', 'Basic Moodle 3', 'Basic Moodle 4', and 'Reports and Reusing data'. Below the main content area is the 'ADMINISTRATION' panel, which includes 'Course administration' with options like 'Edit settings', 'Turn editing off', 'Course completion', 'Users', 'Filters', 'Reports', 'Gradebook setup', 'Badges', 'Backup', 'Restore', 'Import', 'Reset', 'Question bank', and 'Recycle bin'. At the bottom of the administration panel is a 'SEARCH FORUMS' section. On the right side of the page, there is a section titled 'S3. Advanced Moodle: para reviewed tasks, grade book.' with a coordinator 'Ms. Leticia Barrionuevo'. Below this are links for 'Peer-Reviewed Tasks: Workshop a', 'Gradebook', and 'Do you know how to use your calc'. There are also links for 'Advanced Moodle. Peer-reviewed' and 'Prueba', both marked as 'Hidden from students'.



Categories

- It's advisable to organize your questions into categories. Logical organization is by chapters.
- By defect, a *Default for GEOWEB_workshop* categorie is created
- Please, create your own question categorie **under Top**

Visualize a Question



- Click Questions (Administration Panel)
- Visualize CalculatorQuestions category

Question bank

Select a category:

CalculatorQuestions (2) ▼

CalculatorQuestions









☐ Show question text in the question list

[Search options](#) ▼

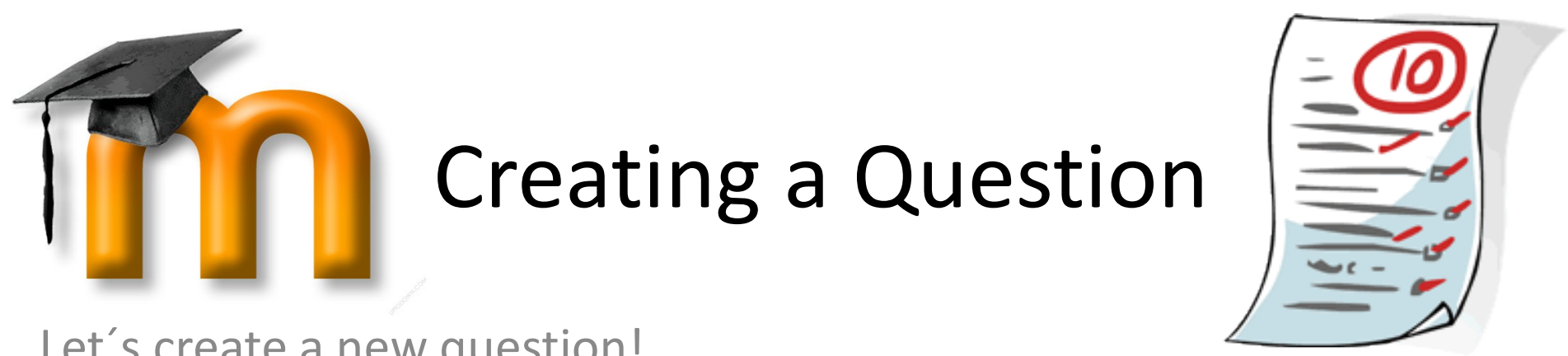
☒ Also show questions from subcategories

☐ Also show old questions

Create a new question ...

<input type="checkbox"/>	T ▲	Question	Created by		Last modified by	
			First name / Surname / Date		First name / Surname / Date	
<input type="checkbox"/>	$2+2=?$	Calc01	   	ENOC SANZ ABLANEDO 6 September 2017, 11:02 AM	ENOC SANZ ABLANEDO 6 September 2017, 12:25 PM	
<input type="checkbox"/>	$2+2=?$	Calc01b	   	ENOC SANZ ABLANEDO 6 September 2017, 11:17 AM	ENOC SANZ ABLANEDO 6 September 2017, 12:30 PM	

- Visualize one single question



Creating a Question

Let's create a new question!

What is the Sine of an angle whose Cosine is...?

Solution:

$\sin(\arccos(x))$

Note:

x should be between -1 and 1



Moodle internal math library can use these Functions:



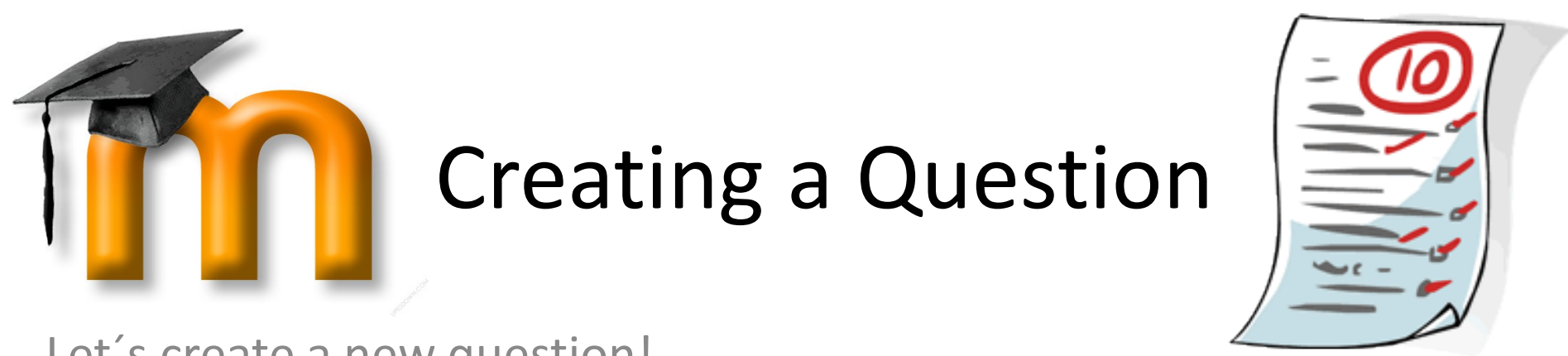
Function	Explanation
abs	Absolute value
acos	Arc cosine -- output in radians.
acosh	Inverse hyperbolic cosine -- output in radians.
asin	Arc sine -- output in radians.
asinh	Inverse hyperbolic sine.-- output in radians.
atan2	Arc tangent of two variables -- pass in two values like (y, x), and you'll get the $\text{atan}(y/x)$, adjusted to the proper quadrant. (Note: The variables are in the reverse order to $\text{atan2}(x,y)$ in Excel) Output is radians.
atan	Arc tangent -- output in radians.
atanh	Inverse hyperbolic tangent-- output in radians.
bindec	Binary to decimal
ceil	Round fractions up
cos	Cosine -- in radians!!! Convert your degree measurement to radians before you take the cos of it.
cosh	Hyperbolic cosine -- in radians!!! Convert your degree measurement to radians before you take the cosh of it.
decbin	Decimal to binary
decoct	Decimal to octal
deg2rad	Converts the number in degrees to the radian equivalent
exp	Calculates the exponent of e
expm1	Returns $\exp(\text{number}) - 1$, computed in a way that is accurate even when the value of number is close to zero
floor	Round fractions down



Moodle can Use these Functions



fmod	Returns the floating-point modulus of two numbers - i.e. the remainder when the first is divided by the second.
is_finite	Finds whether a value is a legal finite number
is_infinite	Finds whether a value is infinite
is_nan	Finds whether a value is not a number
log10	Base-10 logarithm
log1p	Returns $\log(1 + \text{number})$, computed in a way that is accurate even when the value of number is close to zero
log	Natural logarithm (\ln)
max	Find highest value
min	Find lowest value
octdec	Octal to decimal
pi()	Get value of pi - the function does not take an argument, like in Excel.
pow (numberToRaise, NumberRaisedTo)	Exponential expression
rad2deg	Converts the radian number to the equivalent number in degrees
rand	Generate a random integer
round	Rounds a float
sin	Sine -- in radians!!! Convert your degree measurement to radians before you take the sin of it.
sinh	Hyperbolic sine -- in radians!!! Convert your degree measurement to radians before you take the sinh of it.
sqrt	Square root
tan	Tangent -- in radians!!! Convert your degree measurement to radians before you take the tan of it.
tanh	Hyperbolic tangent -- in radians!!! Convert your degree measurement to radians before you take the tanh of it.



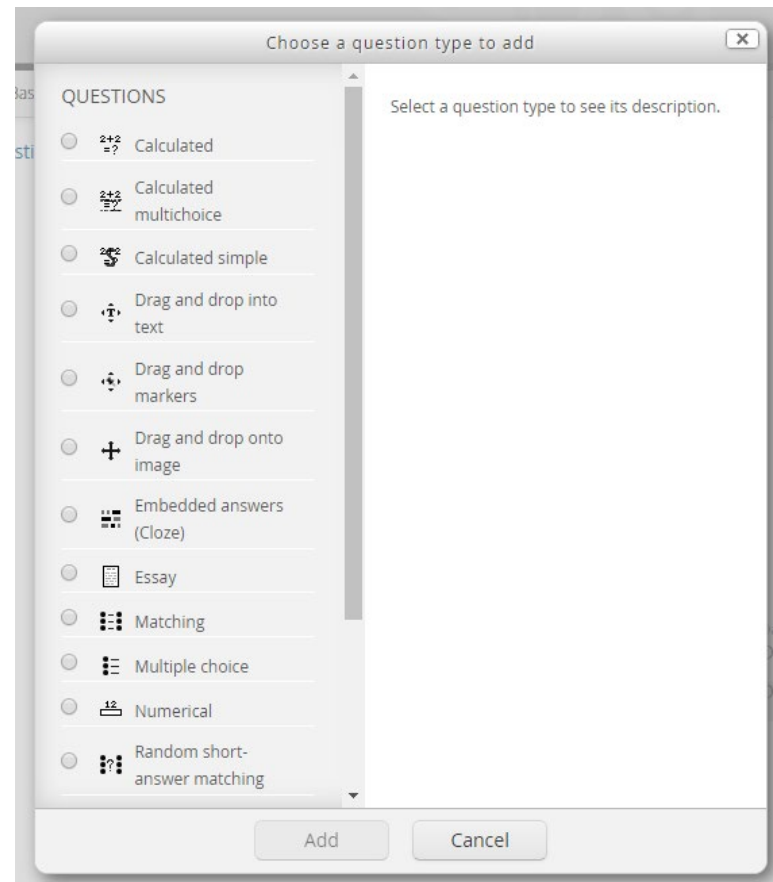
Creating a Question

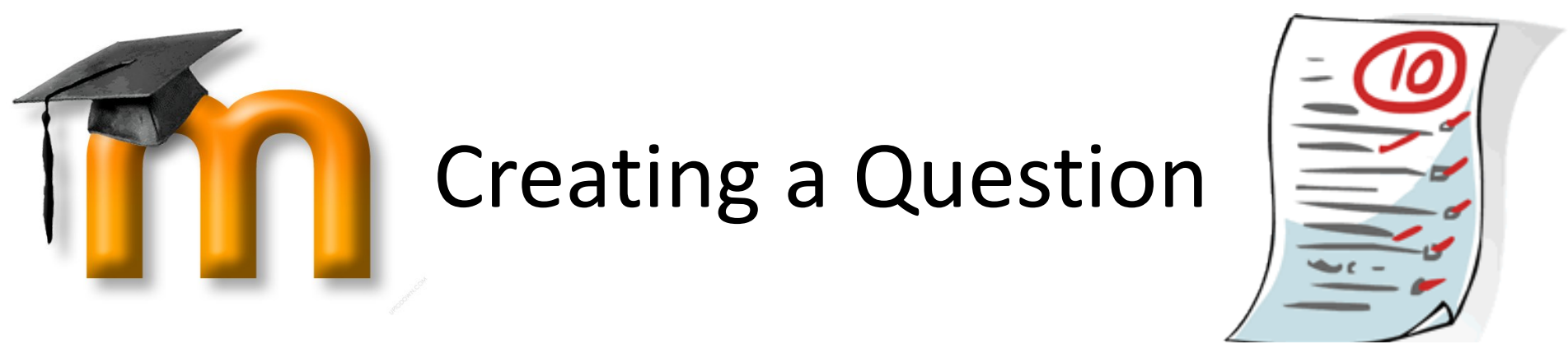
Let's create a new question!

What is the Sine of an angle
whose Cosine is...?

Solution= $\sin(\arccos(x))$
x should be between -1 and 1

- Select your category
- Click on Button Create a new question
- Select calculated simple
- Add





Creating a Question

- Ensure The Question is under desired category
- Introduce a short descriptive name
- Write the Question Text.
 - Here, you must add a variable in the question. For example {cosAngle}
 - Variables must be inside { }
- Let the Default mark =1. This is metadata for advance use
- Let general feedback empty. We don't need to say something every question

Category

Question name *

Question text *

Paragraph **B** *I*

What is the Sino of an angle whose Cos is {cosAngle}?

Path: p

Default mark *

General feedback ?

Paragraph **B** *I*

Path: p



Creating a Question



Answer formula is:

$\sin(\text{acos}(\{\text{cosAngle}\}))$

Add the rounding to the 4th decimal

$\text{round}(\sin(\text{acos}(\{\text{cosAngle}\})), 4)$

If the answer is correct we will give
100% grade

With rounding, answer should be
perfect, so change tolerance to:

0.0001

This tolerance is absolute, so
change Type to nominal

We are working with 4 decimal,
so change accordingly.

No Feedback is necessary if the
answer is correct

▼ Answers

Answer 1 formula =	<input type="text" value="round(sin(acos({cosAngle})),4)"/>	Grade	<input type="text" value="100%"/>
Tolerance ±	<input type="text" value="0.0001"/>	Type	<input type="text" value="Nominal"/>
Answer display	<input type="text" value="4"/>	Format	<input type="text" value="decimals"/>
Feedback	<div><input type="text" value="Paragraph"/> B <i>I</i> <input type="text" value="List"/> <input type="text" value="List"/> <input type="text" value="Link"/> <input type="text" value="Image"/> <input type="text" value="Table"/> <input type="text" value="Code"/></div> <div></div> <div>Path: p</div>		

Blanks for 1 more answers



Creating a Question



We want to warn when there is a rounding error

Click on Button
Blanks for 1 more answer

Second answer is checked when
#1 fails.

Now, Tolerance is larger.

Add the feedback

▼ Answers

Answer 1 formula = **Grade** 100% ▼

Tolerance ± **Type** Nominal ▼

Answer display 4 ▼ **Format** decimals ▼

Feedback

Paragraph ▼ B I [List Icons] [Link Icon] [Image Icon] [Video Icon] [File Icon]

Path: p

Answer 2 formula = **Grade** None ▼

Tolerance ± **Type** Nominal ▼

Answer display 4 ▼ **Format** decimals ▼

Feedback

Paragraph ▼ B I [List Icons] [Link Icon] [Image Icon] [Video Icon] [File Icon]

Rounding Error!

Path: p

Blanks for 1 more answers



Creating a Question



In this problem we don't need units neither multiple tries

Note that there is an error: Moodle need to search the variables inside wild Cards

► Unit handling

► Units

► Multiple tries

Find the wild cards {x..} present in the correct answer formulas



There must be at least one wild card {x..} present in the correct answer formulas

Click on Button

Find the wild cards

Moodle will search in the question text and in answer



Creating a Question



New options are now available, but a new error appear.

The variables in questions/answer need to be randomly generated now.

Before generate the generate the random values we need to set the limits:

Open the Options in Wild Card parameter used ...

► Multiple tries

Find the wild cards {x..} present in the correct answer formulas

► Wild cards parameters used to generate the values

Generate 1 new set(s) of wild card(s) values

Display 1 set(s) of wild card(s) values

You must add at least one set of wild card(s) values before you can save this question.

► Tags



Creating a Question



Cos values from any angle should be between -1 and 1 values.

We can randomly generate the values with 4 decimals. We will create 100 values, so there will be 100 different problems with the same question. For check, Moodle will show 5 sets.

When everything is ready click on generate.

▼ Wild cards parameters used to generate the values

Param {cosAngle}

Range of Values

Minimum

-1

- Maximum

1

Decimal places

4

Generate

100

new set(s) of wild card(s) values

Display

5

set(s) of wild card(s) values

You must add at least one set of wild card(s) values before you can save this question



Creating a Question



The 5 first questions and answers will be showed. It's a good moment for checking the formula.

The question is ready you can click **Save Changes**

Return to Question Bank and try your new question

▼ Wild card(s) values

Update the wild card(s) values

Set 100	round(sin(acos...	round(sin(acos((-0.8290))),4) = 0.5592 Correct answer : 0.5592 inside limits of true value Min: 0.559099999999999 --- Max: 0.559300000000001
	round(sin(acos...	round(sin(acos((-0.8290))),4) = 0.5592 Correct answer : 0.5592 inside limits of true value Min: 0.549199999999999 --- Max: 0.569200000000001
Set 99	round(sin(acos...	round(sin(acos((-0.0130))),4) = 0.9999 Correct answer : 0.9999 inside limits of true value Min: 0.999799999999999 --- Max: 1
	round(sin(acos...	round(sin(acos((-0.0130))),4) = 0.9999 Correct answer : 0.9999 inside limits of true value Min: 0.989899999999999 --- Max: 1.0099
Set 98	round(sin(acos...	round(sin(acos((-0.4310))),4) = 0.9024 Correct answer : 0.9024 inside limits of true value Min: 0.902299999999999 --- Max: 0.902500000000001
	round(sin(acos...	round(sin(acos((-0.4310))),4) = 0.9024 Correct answer : 0.9024 inside limits of true value Min: 0.892399999999999 --- Max: 0.912400000000001

Calc11	6 September 2017, 4:12 PM	6 September 2017, 4:18 PM
What is the secant of {rad} radians? (Round to 4th decimal)		
Calc12	6 September 2017, 4:17 PM	6 September 2017, 4:17 PM
What is the cosecant of an angle of {gra} centesimal degrees? (Round to 4th decimal)		
Calc12b	6 September 2017, 5:24 PM	6 September 2017, 5:25 PM
What is the Sino of an angle whose Cos is {cosAngle}?		
Calc2b	6 September 2017, 3:16 PM	6 September 2017, 4:18 PM
What centesimal angle has a tangent of {t}? (Round to 4th decimal)		
Calc3c	6 September 2017, 3:25 PM	6 September 2017, 4:18 PM
What is the angle in radians that have a sine of {s}? (Round to 4th decimal)		
Calc4h		



The second Part



To create the questions is the first thing to do.

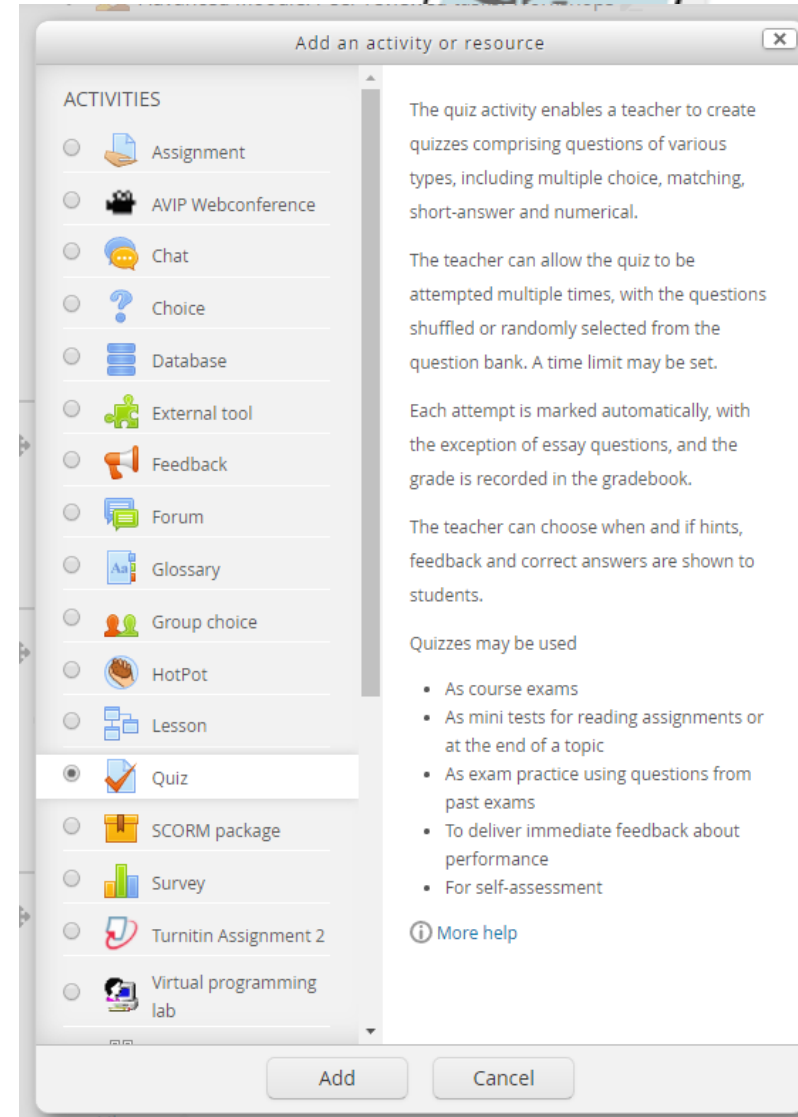
Now It's necessary to create a **new activity**:
A Quiz

Go to Home → GEOWEB_Workshop

Go to Section S3.

→ **Add an activity or resource**
→ **Select Quiz**

ClickAdd





The second Part



Name:

YourNameCalcQuiz

▼ General

Name *

EnocSanzCalcQuiz

Description

Paragraph B I

Describe your exam or quiz here.

Path: p

Display description on course page ☐

Description: Here
you describe to
students what
the test consists
of

If description is brief you can
choose to show it on the main
course page



The second Part



Timing of the Quiz: Great flexibility

▼ Timing

Open the quiz ?

12 ▼

September ▼

2017 ▼

00 ▼

49 ▼



Enable

Close the quiz

13 ▼

September ▼

2017 ▼

00 ▼

49 ▼



Enable

Time limit ?

10

minutes ▼



Enable

When time expires ?

Open attempts are submitted automatically

Submission grace period ?

1

days ▼



Enable



Grade category:

This setting controls the category in which this activity's grades are placed in the gradebook.

Grade to pass:

This setting determines the minimum grade required to pass. The value is used in activity and **course completion**, and in the gradebook, where pass grades are highlighted in green and fail grades in red..

▼ Grade

Grade category ?	Uncategorised ▼
Grade to pass ?	
Attempts allowed	Unlimited ▼
Grading method ?	Highest grade ▼



The second Part



▼ Layout

New page ?

Every 4 questions ▼

[Show more...](#)

▼ Question behaviour

Shuffle within questions ?

Yes ▼

How questions behave ?

Deferred feedback ▼

[Show more...](#)

Shuffle: questions order is randomly generated

Deferred feedback: the students enter an answer to each question and then submit the entire quiz, before anything is graded or they get any feedback.



The second Part



▼ Review options ⓘ

During the attempt

- ☒ The attempt ⓘ
- ☒ Whether correct ⓘ
- ☒ Marks ⓘ
- ☒ Specific feedback ⓘ
- ☒ General feedback ⓘ
- ☒ Right answer ⓘ
- ☐ Overall feedback ⓘ

Immediately after the attempt

- ☒ The attempt
- ☒ Whether correct
- ☒ Marks
- ☒ Specific feedback
- ☒ General feedback
- ☒ Right answer
- ☒ Overall feedback

Later, while the quiz is still open

- ☒ The attempt
- ☒ Whether correct
- ☒ Marks
- ☒ Specific feedback
- ☒ General feedback
- ☒ Right answer
- ☒ Overall feedback

After the quiz is closed

- ☒ The attempt
- ☒ Whether correct
- ☒ Marks
- ☒ Specific feedback
- ☒ General feedback
- ☒ Right answer
- ☒ Overall feedback

▼ Appearance

Show the user's picture ⓘ

No image ▼

Decimal places in grades ⓘ

2 ▼

[Show more...](#)



The second Part



▼ Extra restrictions on attempts











Require password ⓘ [Click to enter text](#)  

[Show more...](#)

▼ Overall feedback ⓘ

Grade boundary 100%












Feedback

 Paragraph          

Path: p

Grade boundary

Feedback

 Paragraph          

Path: p

Grade boundary 0%

Add 3 more feedback fields



Good job!
Exam was perfect

Well...
Exam was not perfect,
you should do it again!




The second Part



▼ Common module settings

Availability 

Show on course page ▼

ID number 

Group mode 

No groups ▼

Grouping 

None ▼

Add group/grouping access restriction

▼ Restrict access

Access restrictions

None

Add restriction...



The second Part



▼ Activity completion

Completion tracking ?

Students can manually mark the activity as completed ▼

Require view

☒ Student must view this activity to complete it

Require grade ?

☐ Student must receive a grade to complete this activity

Require passing grade ?

☐ Require passing grade ☐ Or all available attempts completed

Expect completed on ?

6 ▼ September ▼ 2017 ▼  ☐ Enable

▼ Tags

Tags No selection

Enter tags... ▼

▼ Competencies

Course competencies ?

No selection

Search ▼

Upon activity completion:

Do nothing ▼

Save and return to course

Save and display

Cancel

When everything is
OK. *Save and display.*



The Third Part

It's time
to add the
questions!



EnocSanzCalcQuiz

Describe your exam or quiz here.

The quiz will not be available until Tuesday, 12 September 2017, 12:49 AM

This quiz will close at Wednesday, 13 September 2017, 12:49 AM

Time limit: 10 mins

Grading method: Highest grade

No questions have been added yet

Edit quiz

Back to the course

Click on *Edit quiz*



The Third Part



Editing quiz: EnocSanzCalcQuiz ?

Questions: 0 | Quiz closed (opens 12/09/17, 00:49)

Maximum grade 10.00

Save

Repaginate

Select multiple items



Add a random question

- + a new question
- + from question bank
- + a random question

Add a random question at the end

Random question from an existing category

Category

CalculatorQuestions (12)

☐

Include questions from subcategories too

Number of random questions

10

Add random question

Random question using a new category

Name

Parent category ?

Top

Create category and add random question



The Third Part



Editing quiz: EnocSanzCalcQuiz ?


Questions: 10 | Quiz closed (opens 12/09/17, 00:49)

Repaginate

Select multiple items

1
Maximum grade 2

Total of marks: 10.00

 ☐ Shuffle ?

Page 1

+

1

Random (CalculatorQuestions) (See questions)

1.00

+

2

Random (CalculatorQuestions) (See questions)

1.00

+

3

Random (CalculatorQuestions) (See questions)

1.00

+

4

Random (CalculatorQuestions) (See questions)

1.00

Page 2

+

5

Random (CalculatorQuestions) (See questions)

1.00

+

6

Random (CalculatorQuestions) (See questions)

1.00

+

7

Random (CalculatorQuestions) (See questions)

1.00

+

8

Random (CalculatorQuestions) (See questions)

1.00

Page 3

+

9

Random (CalculatorQuestions) (See questions)

1.00

+

10

Random (CalculatorQuestions) (See questions)

1.00

Add

Add

Add

Add

**Choose the
maximum
grade and SAVE**

IT IS READY!



Surveying Instruments Course.

- 10 different Quiz during the whole course
 - Polar/Cartesian coordinate conversion
 - Scales and visual perception
 - Metric and Imperial area units
 - Slope units and system problems
 - Taquimeters and Level errors, sensibility
 - Indirect distance measurement
- **Parameterized**
 - Students were very highly motivated: **About 4-5 tries/every student**
 - Every Student (21) did **individually and sucesflyllu** the work
- **Automatic Correction**
 - No workload for the teacher, but students perceive that teacher is very concerned about its progress

Top_Apl: Cuestionarios - Mozilla Firefox

Archivo Editar Ver Historial Marcadores Herramientas Ayuda

http://www3.unileon.es/personal/wwwdimrp/recursos/mod/quiz/index.php?id=44

Wikipedia (es-ES)

Comenzar a usar Fir... Últimas noticias

Google moodle moot 2008

Quick Search: Type your search here... Search Web Look for Maps Services (9) Web Security Guard Customize

Lector de correo ... [Oficina de Evalu... moodle moot 200... Curso: Informad... Google Docs - Ca... Cuestiones innov... Top_Apl: Cuest...

Topografía Aplicada 08

IngeCart » Top_Apl » Cuestionarios

Ir a...

Editar preguntas


Semana	Nombre	Cuestionario cerrado	Intentos
3	Uso de funciones trigonométricas con calculadora científica	martes, 22 de julio de 2008, 09:00	Ver los informes de 108 intentos (21 Estudiante)
4	Conversión de Coordenadas Cartesianas a Polares y Viceversa	martes, 22 de julio de 2008, 09:00	Ver los informes de 90 intentos (21 Estudiante)
5	Test de escalas y límites de percepción visual	lunes, 30 de junio de 2008, 09:00	Ver los informes de 59 intentos (18 Estudiante)
	Test de unidades agrarias y unidades angulares	martes, 22 de julio de 2008, 09:00	Ver los informes de 62 intentos (19 Estudiante)
	Test de pendientes	lunes, 30 de junio de 2008, 09:00	Ver los informes de 76 intentos (19 Estudiante)
7	Test de ángulos en topografía	martes, 22 de julio de 2008, 09:00	Ver los informes de 84 intentos (20 Estudiante)
8	Errores, sensibilidad, niveles...	martes, 22 de julio de 2008, 09:00	Ver los informes de 54 intentos (16 Estudiante)
9	Examen de los Test anteriores A	lunes, 23 de junio de 2008, 19:00	Ver los informes de 39 intentos (16 Estudiante)
10	Trabajo con miras	lunes, 30 de junio de 2008, 09:00	Ver los informes de 48 intentos (19 Estudiante)
11	Cuestionario de radiación	lunes, 7 de julio de 2008, 08:00	Ver los informes de 26 intentos (13 Estudiante)

Usted está en el sistema como [Enoc Sanz Ablanedo](#) (Salir)

Terminado

Descargas Bandeja de entrada - Mic... Progreso de envío o rece... Informe PAID2007 - Mic... PAID_Enoc_2007 - Micro...

Abgrr bloc de notas

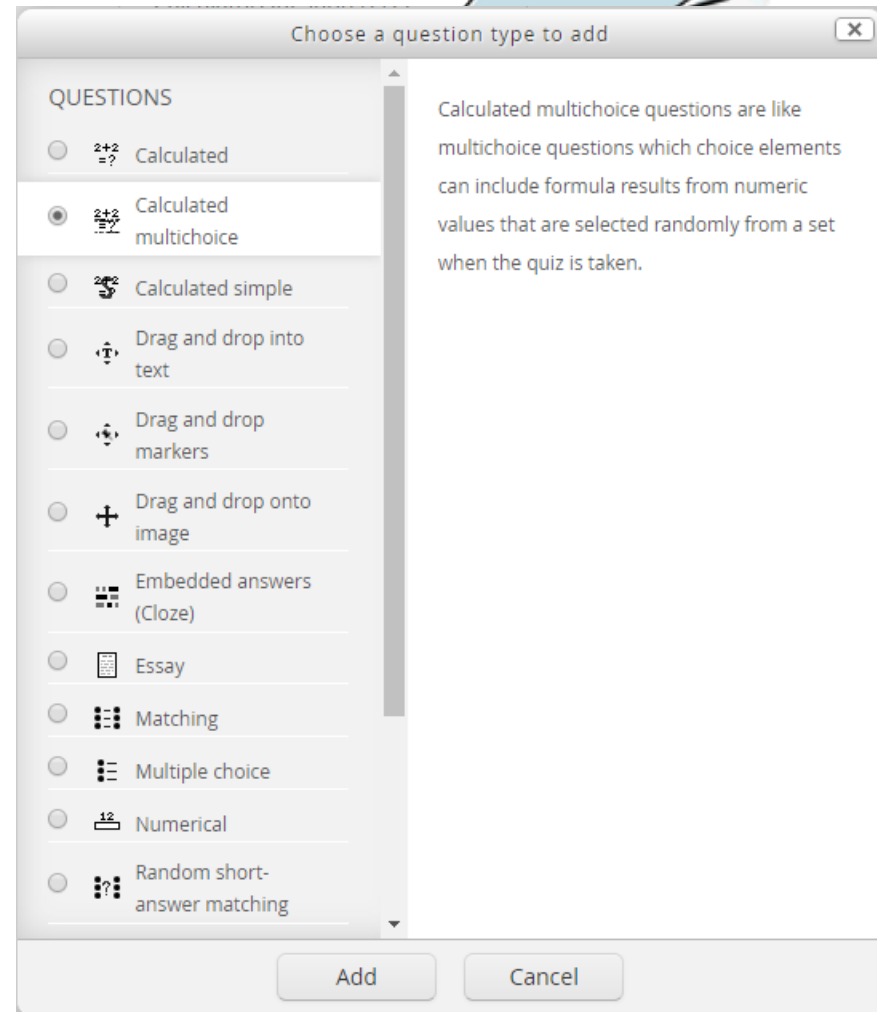


Other Question Type



**We have review the calculates simple.
There are more options.**

- Calculated
 - Basically it's the same as *calculated simple* but with more flexibility and advanced options
- Calculated Multichoice
 - The same with multichoice options





Drag and drop into text



Complete the sentences by using the correct words from the list:

John likes football with friends.

Jane also enjoys to matches with friends and they often out together with families.

playing go play going
her their his

Drag the words from the list below into the correct spaces:

When something or someone is the subject of a sentence, it is in the [[1]] case.

When something or someone is the object of a sentence, it is the [[2]] case.

When we talk about ownership, we use the [[3]] case.

The indirect object is known as the [[4]] case.

Shuffle ☒

Choice 1	Answer	<input type="text" value="playing"/>	Group	<input type="text" value="1"/>	<input type="checkbox"/> Unlimited
Choice 2	Answer	<input type="text" value="his"/>	Group	<input type="text" value="2"/>	<input type="checkbox"/> Unlimited
Choice 3	Answer	<input type="text" value="going"/>	Group	<input type="text" value="1"/>	<input type="checkbox"/> Unlimited
Choice 4	Answer	<input type="text" value="her"/>	Group	<input type="text" value="2"/>	<input type="checkbox"/> Unlimited
Choice 5	Answer	<input type="text" value="play"/>	Group	<input type="text" value="1"/>	<input type="checkbox"/> Unlimited
Choice 6	Answer	<input type="text" value="their"/>	Group	<input type="text" value="2"/>	<input type="checkbox"/> Unlimited
Choice 7	Answer	<input type="text" value="go"/>	Group	<input type="text" value="1"/>	<input type="checkbox"/> Unlimited

Wildcards: [[]]

Choose a question type to add

- ☒ Drag and drop into text
- ☐ Drag and drop markers
- ☐ Drag and drop onto image
- ☐ Embedded answers (Cloze)
- ☐ Essay
- ☐ Matching
- ☐ Multiple choice
- ☐ Numerical
- ☐ Random short-answer matching
- ☐ Select missing words
- ☐ Short answer
- ☐ True/False
- OTHER
- ☐ Description

Missing words in the question text are filled in using drag and drop.

Add Cancel



Drag and drop markers



Drag the correct names to the correct regions of Australia.

Western Australia

Queensland New South Wales Western Australia Tasmania
Northern Territory South Australia Victoria

☐ Shuffle drag items each time question is attempted

Marker 1	Queensland	Number	1
Marker 2	New South Wales	Number	1
Marker 3	Western Australia	Number	1
Marker 4	Tasmania	Number	1
Marker 5	Northern Territory	Number	1
Marker 6	South Australia	Number	1
Marker 7	Victoria	Number	1

Choose a question type to add

- ☐ Drag and drop into text
- ☒ Drag and drop markers
- ☐ Drag and drop onto image
- ☐ Embedded answers (Cloze)
- ☐ Essay
- ☐ Matching
- ☐ Multiple choice
- ☐ Numerical
- ☐ Random short-answer matching
- ☐ Select missing words
- ☐ Short answer
- ☐ True/False
- OTHER
 - ☐ Description

Markers are dragged and dropped onto a background image.

Add Cancel

Drop zone 3 Shape Rectangle Coords 10,30;170,250 Marker Western Australia



Drag and drop onto image



Let's look at a typical progression that a teacher might go through as they learn to use the Moodle tools. Start on the bottom step and work your way up :)



Wiki, Glossary, Database	Quizzes & Assignments	Handouts
Workshop, peer reviewing	External activities, Gamification	Passive forum
Actively facilitating forums	Community sharing	Survey, reflecting
Sequencing		

Choose a question type to add

- ☐ Drag and drop into text
- ☐ Drag and drop markers
- ☒ + Drag and drop onto image
- ☐ Embedded answers (Cloze)
- ☐ Essay
- ☐ Matching
- ☐ Multiple choice
- ☐ Numerical
- ☐ Random short-answer matching
- ☐ Select missing words
- ☐ Short answer
- ☐ True/False
- OTHER
 - ☐ Description

Images or text labels are dragged and dropped into drop zones on a background image.

Add Cancel



Embedded answers (Cloze)



Match the following cities with the correct state:

- * San Francisco: {1:MULTICHOICE:=California#OK~Arizona#Wrong}
- * Tucson: {1:MULTICHOICE:California#Wrong~%100%Arizona#OK}
- * Los Angeles: {1:MULTICHOICE:=California#OK~Arizona#Wrong}
- * Phoenix: {1:MULTICHOICE:%0%California#Wrong~Arizona#OK}

The capital of France is {1:SHORTANSWER:%100%Paris#Congratulations!
~%50%Marseille#No, that is the second largest city in France (after
Paris).~*#Wrong answer. The capital of France is Paris, of course.}.

And the result will be:

1 Match the following cities with the correct state:

Marks: -- * San Francisco:

/5

* Tucson:

* Los Angeles:

* Phoenix:

The capital of France is

Choose a question type to add

- ☐ Drag and drop into text
- ☐ Drag and drop markers
- ☐ Drag and drop onto image
- ☒ Embedded answers (Cloze)
- ☐ Essay
- ☐ Matching
- ☐ Multiple choice
- ☐ Numerical
- ☐ Random short-answer matching
- ☐ Select missing words
- ☐ Short answer
- ☐ True/False
- OTHER
- ☐ Description

Questions of this type are very flexible, but can only be created by entering text containing special codes that create embedded multiple-choice, short answers and numerical questions.

Add Cancel



Essay

- The essay question type provides the option of answering by uploading one or more files and/or entering text online.
- Essay questions are created in the same way as other quiz question types.
- The difference is that essay questions have to be **marked manually**, and the student will not get a final grade until the teacher has marked their essay.



▼ Response Template

Response template ?



Molière and the commedia dell'arte

(Name your two chosen plays here with reasons for the choice)

Background

(Explain what is the commedia dell'arte and how it connects to the comedies of Molière)

Characterisation

(Give detailed examples from both plays)

Choose a question type to add

- ☐ Drag and drop into text
- ☐ Drag and drop markers
- ☐ + Drag and drop onto image
- ☐ Embedded answers (Cloze)
- ☒ Essay
- ☐ Matching
- ☐ Multiple choice
- ☐ Numerical
- ☐ Random short-answer matching
- ☐ Select missing words
- ☐ Short answer
- ☐ True/False
- OTHER
 - ☐ Description


Allows a response of a file upload and/or online text. This must then be graded manually.

Add Cancel

Matching



Preview Matching

1  Match the following items.

Marks:
--/1

Three

three

five

One

one

one

Two














Drag answer here

four

three

Submit

Choose a question type to add

- ☐  Drag and drop into text
- ☐  Drag and drop markers
- ☐  Drag and drop onto image
- ☐  Embedded answers (Cloze)
- ☐  Essay
- ☒  Matching
- ☐  Multiple choice
- ☐  Numerical
- ☐  Random short-answer matching
- ☐  Select missing words
- ☐  Short answer
- ☐  True/False
- OTHER
- ☐  Description

The answer to each of a number of sub-question must be selected from a list of possibilities.

Add

Cancel



Multiple Choice



Multiple choice: Range of a matrix

Quiz: The examples in the user manual

1
Marks: -1
What is the range of the following matrix? $\begin{pmatrix} 0 & 0 & -1 & 0 \\ 1 & -1 & 0 & -1 \\ 1 & -1 & 0 & 0 \end{pmatrix}$

Choose
one
answer.

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3

Submit

Choose a question type to add

- ☐ Drag and drop into text
- ☐ Drag and drop markers
- ☐ + Drag and drop onto image
- ☐ Embedded answers (Cloze)
- ☐ Essay
- ☐ Matching
- ☒ Multiple choice
- ☐ Numerical
- ☐ Random short-answer matching
- ☐ Select missing words
- ☐ Short answer
- ☐ True/False
- OTHER
- ☐ Description

Allows the selection of a single or multiple responses from a pre-defined list.

Add Cancel



Preview question: The Difference between integers

Question 1

Correct

Mark 1.00 out of 1.00

What is the difference between 9.0 and 6.2?

Select one:

- ☐ a. 55.80
- ☐ b. 15.20
- ☒ c. 2.80 ✓
- ☐ d. 1.45

Correct!

This question is with 1 point.

The correct answer is: 2.80

Start again

Save

Fill in correct responses

Submit and finish

Close preview

Technical information ? ►

Choose a question type to add

- ☐ Drag and drop into text
- ☐ Drag and drop markers
- ☐ + Drag and drop onto image
- ☐ Embedded answers (Cloze)
- ☐ Essay
- ☐ Matching
- ☐ Multiple choice
- ☒ Numerical
- ☐ Random short-answer matching
- ☐ Select missing words
- ☐ Short answer
- ☐ True/False
- OTHER
- ☐ Description

Allows a numerical response, possibly with units, that is graded by comparing against various model answers, possibly with tolerances.

Add Cancel



Random Short answer matching



- The Random Short-Answer Matching question looks just like a [Matching question](#).
- The difference is that the sub-questions are drawn randomly from a (large) list

Match the places to their capitals or administrative centres

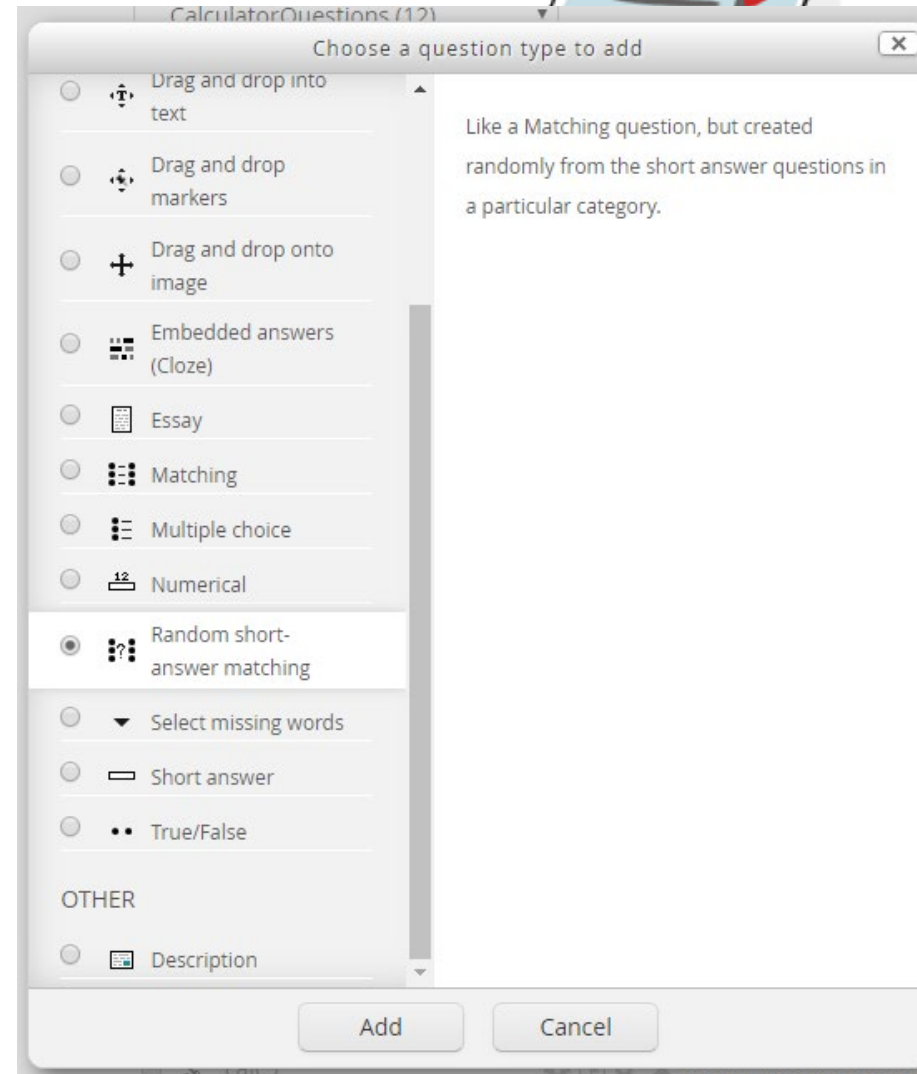
What is the capital of the Isle of Man? Choose... ▼

What is the capital of the Isle of Wight? Choose... ▼

What is the capital of Scotland? Choose... ▼

What is the capital of Wales? Choose... ▼

What is the capital of England? Choose... ▼





Select Missing Words



Choose the right words for the right gaps:

When something or someone is the subject of a sentence, it is in the case.

When something or someone is the object of a sentence, it is the case.

When we talk about ownership, we use the case.

The indirect object is known as the case.

-
-
-
-
-

Shuffle ☒

Choice 1	Answer	<input type="text" value="nominative"/>	Group	<input type="text" value="1"/>
Choice 2	Answer	<input type="text" value="accusative"/>	Group	<input type="text" value="1"/>
Choice 3	Answer	<input type="text" value="genitive"/>	Group	<input type="text" value="1"/>
Choice 4	Answer	<input type="text" value="dative"/>	Group	<input type="text" value="1"/>

Choose a question type to add

- ☐ Drag and drop into text
- ☐ Drag and drop markers
- ☐ + Drag and drop onto image
- ☐ Embedded answers (Cloze)
- ☐ Essay
- ☐ Matching
- ☐ Multiple choice
- ☐ Numerical
- ☐ Random short-answer matching
- ☒ Select missing words
- ☐ Short answer
- ☐ True/False
- OTHER
- ☐ Description

Missing words in the question text are filled in using dropdown menus.

Add Cancel



Short Answer



Preview question: What is the W3C

Question 1
Incorrect
Mark 0.00 out of 1.00

What is does W3C stand for?

Answer: Waddle Wet World City ✗

The correct answer is: World Wide Web Consortium

Flexiblility with wilcards

Here are some answers and scores for a question "What does a rocket burn?".

1. oxygen*fuel with a score 100%
2. *fuel* with a score 50%
3. *oxygen* with a score 50%
4. *air* with a score 40%
5. * with a score of 0%

Choose a question type to add

- ☐ Drag and drop into text
- ☐ Drag and drop markers
- ☐ + Drag and drop onto image
- ☐ Embedded answers (Cloze)
- ☐ Essay
- ☐ Matching
- ☐ Multiple choice
- ☐ Numerical
- ☐ Random short-answer matching
- ☐ Select missing words
- ☒ Short answer
- ☐ True/False
- OTHER
- ☐ Description

Allows a response of one or a few words that is graded by comparing against various model answers, which may contain wildcards.

Add Cancel



Short Answer



Preview question: Paragraph tag

Question 1

Correct

Mark 1.00 out of 1.00

The `<p>` tag is for making text bold.

Select one:

☐ True

☒ False ✓

Correct!

The correct answer is 'False'.

Choose a question type to add

- ☐ Drag and drop into text
- ☐ Drag and drop markers
- ☐ + Drag and drop onto image
- ☐ Embedded answers (Cloze)
- ☐ Essay
- ☐ Matching
- ☐ Multiple choice
- ☐ Numerical
- ☐ Random short-answer matching
- ☐ Select missing words
- ☐ Short answer
- ☒ •• True/False

OTHER

- ☐ Description

A simple form of multiple choice question with just the two choices 'True' and 'False'.

Add Cancel



Conclusions

- Moodle can be used as **complementary** evaluation tool
- Moodle have **all flexibility** for doing and automatically correct many type of **quizzes** or **exams**
- To prepare a well and large questions bank is easy but **time consuming**
- Once the questions are done, to launch a new quiz **it's very fast**
- **Automatic** correction and **parametrization in quizzes**
 - increase students **motivation**
 - Increases the dedication of students towards the subject
 - Improves student perception of teacher



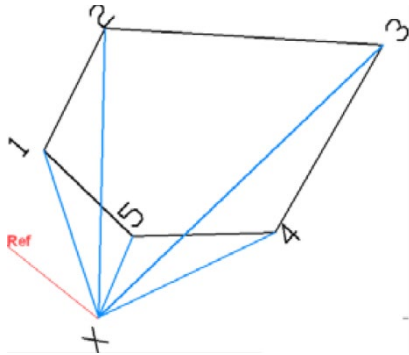
A challenge...

Parameterize with a *Simple Calculated Question*, this Land Surveying problem:



An antique measurement of a rustic property with a total station is available. The relative angle readings and horizontal distances are shown in the attached table. The chosen local coordinates of the base are **5000,5000** and the Reference point is **89.356 to the West and 178.69 to the North**.

Calculate azimuths and the total area of the property.



Base	Punto	H _z	d
X	Ref	0.0000	
	1	94.8493	99.096
	2	111.7773	159.031
	3	167.1801	212.23
	4	181.0567	104.767
	5	135.6605	49.871

Time: 30 min

Area Solution:

$$\begin{aligned} & \text{ABS}((\sin(\{hz_one\} * 2 * \pi / 400) * \{d_one\} * \cos(\{hz_two\} * 2 * \pi / 400) * \{d_two\} + \sin(\{hz_two\} * 2 * \pi / 400) * \\ & \{d_two\} * \cos(\{hz_three\} * 2 * \pi / 400) * \{d_three\} + \sin(\{hz_three\} * 2 * \pi / 400) * \{d_three\} * \cos(\{hz_four\} * 2 * \pi / 400) * \\ & \{d_four\} + \sin(\{hz_four\} * 2 * \pi / 400) * \{d_four\} * \cos(\{hz_five\} * 2 * \pi / 400) * \{d_five\} + \sin(\{hz_five\} * 2 * \pi / 400) * \\ & \{d_five\} * \cos(\{hz_one\} * 2 * \pi / 400) * \{d_one\} - \\ & (\cos(\{hz_one\} * 2 * \pi / 400) * \{d_one\} * \sin(\{hz_two\} * 2 * \pi / 400) * \{d_two\} + \cos(\{hz_two\} * 2 * \pi / 400) * \\ & \{d_two\} * \sin(\{hz_three\} * 2 * \pi / 400) * \{d_three\} + \cos(\{hz_three\} * 2 * \pi / 400) * \{d_three\} * \sin(\{hz_four\} * 2 * \pi / 400) * \\ & \{d_four\} + \cos(\{hz_four\} * 2 * \pi / 400) * \{d_four\} * \sin(\{hz_five\} * 2 * \pi / 400) * \{d_five\} + \cos(\{hz_five\} * 2 * \pi / 400) * \\ & \{d_five\} * \sin(\{hz_one\} * 2 * \pi / 400) * \{d_one\}))) / 2 \end{aligned}$$

Note: Area is not a function of the orientation

$$A = \frac{1}{2} \begin{vmatrix} X_1 & Y_1 \\ X_2 & Y_2 \\ X_3 & Y_3 \end{vmatrix} = \frac{1}{2} \begin{vmatrix} X_1 & Y_1 \\ X_2 & Y_2 \\ X_3 & Y_3 \end{vmatrix}$$



Thank you!