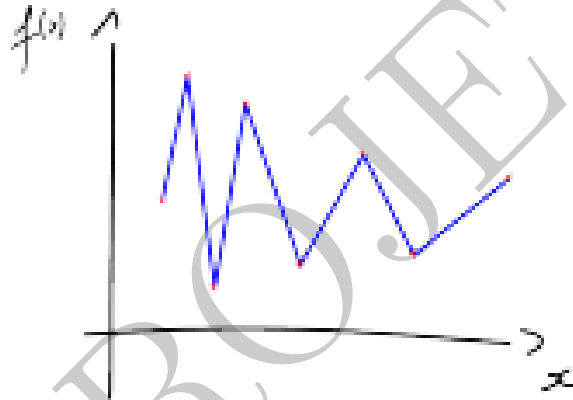**Test**

Nom et prénom :

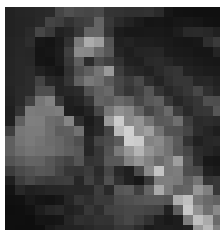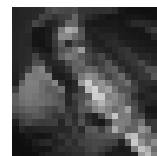...

Illustration of `amc2moodle` capabilities. All these questions can be converted *automatically* to `moodle` with the same layout.

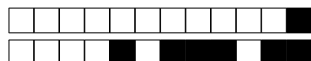## Multiple choice tests using AMC Latex Format

Question 1   On souhaite faire passer *exactement*, par N points donnés, un `polynôme` de degré **strictement** égal à $N - 1$. Pour trouver les coefficients on doit résoudre un *problème*

☐ de moindre carré

☐ de Thelonius Sphere Monk

☐ d'interpolation

Question 2 ♣   Quel fruit possède un noyau?

☐ La pomme   ☐ La tomate   ☐ le Kiwi
☐ *Aucune de ces réponses n'est correcte.*

Question 3   Test for itemize html rendering,

- first item
- Second item blablabla

test for enumerate html rendering,

1. The first item x^2 with math
2. The second **item** with bold

☐   1. The first item x^2
    2. The second **item**

☐ 1 bullet list and 1 ordered list
Remarks: tags in item are ignored.

Question 4   Sometimes amc users use *sectioning* to organize the quiz. This is also possible to do it with `amc2moodle`. In moodle, this is rendered in html using `hi` tags. The starred version are also supported.

1   Section title

Ou blab *ckl* ekjf blab ckl ekjf blab ckl ekjf

Stared Section title

line jhkd blab ckl ekjf blab ckl **ekjf** blab ckl ekjf blab ckl ekjf

1.1   This is a subsection title

blab ckl ekjf subsection content blab ckl ekjf

This is a star subsection title

ekjf blab ckl ekjf blab ckl ekjf blab ckl ekjf blab ckl x^2

1.1.1   A subsubsection

Another subsubsection

Question 5 ♣   Quels sont les opérations qui donnent un chiffre présent dans le tableau?

12	2	2^3
Deux		

☐ 6×6

☐ Avec une équation

$$\int_0^2 x\mathrm{d}x$$

☐ Ou en `C` using `alltt` package

```
int s=-2;
for (int i=0;i<4; i++){
s=i*i+s;
}
```

☐ Avec une équation matricielle

$$\det \begin{pmatrix} 1 & 2 \\ -1 & 10 \end{pmatrix} = \begin{vmatrix} 1 & 2 \\ -1 & 10 \end{vmatrix} \tag{1}$$

☐ $|-10 - 2|$ (math inline and newcommand)

☐ la réponse en image

☐ *Aucune de ces réponses n'est correcte.*

Question 6   Among the following persons, which one has ever been a President of the French Republic?

☐ Alain Prost   ☐ with an image   ☐ Marcel Proust   ☐ René Coty

Question 7 ♣   Among the following cities, which ones are French prefectures?

☐ Sainte-Menehould

☐ Avignon

☐ Poitiers

☐ *Aucune de ces réponses n'est correcte.*

Question 8 Here is a test for mhchem-LaTeXpackage. This package is not yet supported by LaTeXML, thus the rendering is delegated to `mathjax`. To use it, you need to add `mhchem` in the `mathjax` moodle plugin (ask to admin, see details in README file).

A complicated chemical equation $\text{Hg}^{2+} \xrightarrow{\text{I}^-} \text{HgI}_2 \xrightarrow{\text{I}^-} [\text{Hg}^{\text{II}}\text{I}_4]^{2-}$, the same written in math mode : $\text{Hg}^{2+} \xrightarrow{\text{I}^-} \text{HgI}_2 \xrightarrow{\text{I}^-} [\text{Hg}^{\text{II}}\text{I}_4]^{2-}$, combine with other math operator $K = \text{Hg}^{2+} \xrightarrow{\text{I}^-} \text{HgI}_2 \xrightarrow{\text{I}^-} [\text{Hg}^{\text{II}}\text{I}_4]^{2-}$ and finally placed in the equation environment

$$K = \text{Hg}^{2+} \xrightarrow{\text{I}^-} \text{HgI}_2 \xrightarrow{\text{I}^-} [\text{Hg}^{\text{II}}\text{I}_4]^{2-}$$

☐ a simpler one $\text{CO}_2 + \text{C} \longrightarrow 2\,\text{CO}$.

☐ Wrong Choice!

Question 9 Combien de fois le programme suivant affiche-t-il "x" ?

```
for (int i = 4; i < 24; ++i)
  for (int j = i + 2; j - 1 > 0; --j)
    puts("x");
```

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

Question 10 Explain in few words the aim of this course. ☐OK ☐F

....

....

Question 11 Provide a description of a problem that can be common to several questions. It is useful to define notation, pictures

equations $\int_0^1 x\,\mathrm{d}x = 0$. ... Since, it is not a *real* question, the `choices` environment is not provided. In this case, the question will be converted by `amc2moodle` into moodle `description` question type. To use it in AMC, do not forget to use `QuestionIndicative` to tell AMC not to count points for this question (with a 0-point scoring).

Question 12

What is the **area** of rectangle of height 2.183840093288496178 and width 1.000070437323334825 ?

We recall that $\pi =$3.141592653589793238.

Check for random labels : 0.346558480706812393

Check nested expression : 2.933884413848519720 =? 2.933884413848519720

Check for power and trigo : $\sin(0.5)^2 + \cos(0.5)^2 = $ 0.999999999999999985 =? 1

- [ ] 2.183993917139258694
- [ ] 3.183910530611831003

Question 13 ♣   Compute the eigenvalues of the following matrix

$$\begin{pmatrix} x & y \\ y & z \end{pmatrix}, \tag{2}$$

where $x=$3.131068949648676880, $y=$1.875836745312361392 and $z=$1.188178464857944500.
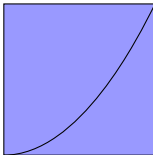
- [ ] -4.319247414506621380
- [ ] 0.047167943447435243
- [ ] 17.849877416146659003
- [ ] 4.272079471059186137
- [ ] 4.319247414506621380
- [ ] *Aucune de ces réponses n'est correcte.*

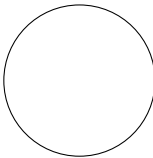**Question 14**   Among the following shape, where is the circle

- [ ]
- [ ] △
- [ ]