

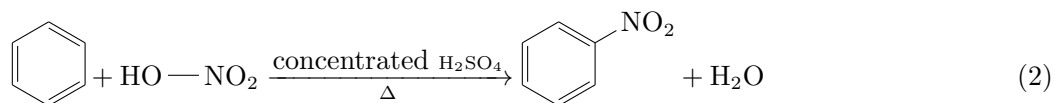
Problem 1 Score: _____. Show that this L^AT_EXtemplate support following functions:

- (1) Mathematical formulas;
- (2) Chemistry formulas.

Solution: (1) In three-dimensional space, the Schrödinger equation of a particle in a potential $V(\mathbf{r}, t)$ is

$$i\hbar \frac{\partial}{\partial t} |\psi(\mathbf{r}, t)\rangle = -\frac{\hbar^2}{2m} \nabla^2 |\psi(\mathbf{r}, t)\rangle + V(\mathbf{r}, t) |\psi(\mathbf{r}, t)\rangle. \quad (1)$$

- (2) Heating and using concentrated sulfuric acid as catalyst, benzene can react with nitric acid to produce nitrobenzene:



□

Problem 2 Score: _____. Conduct following operation:

- (1) Insert figures:
- (a) single figure, setting its position mandatorily;

(b) two subfigures;
- (2) Insert such a table:
- ▷ with merged multi-row and multi-column cells;

▷ three-line table;

▷ cross-page;
- (3) Insert code;
- (4) Cite a reference.

Solution: (1) (a) As figure 1.



Figure 1: Lenna

(b) As the subfigures 2(a) and 2(b) in 2.



Figure 2: Lenna2

(2) As table 1.

Table 1: Exemplary table

merged multi-row cell	merged muti-column cell	merged muti-column cell
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	Column 1	Column 2	Column a	Column b
If	you	shed	tears	when
you	missed	the	sun	
you	also	miss	the	stars

(3) Code are shown as following:

```
1 program_main
2   implicit _none
3
4   write(*,*) _ 'hello _world '
5 end_program_main
```

(4) This book [1] provides a good introduction to quantum mechanics.

□

References

- [1] Claude Cohen-Tannoudji, Bernard Diu, Frank Laloe, and Bernard Dui. Quantum mechanics (2 vol. set), 2006.