Assess following goals:

1. Calculate percentages.
2. Understand percentages and compare them in a real situation.
3. Use percentages to calculate probability.

The French Senate is dominated by two groups: *socialistes* and *le parti de l’UMP (Union pour un movement populaire*). The senate has to decide whether to give money to the Centre Pompidou (a museum of modern art) or to the Musée Picasso as there is only enough money for one institution.

The socialists want to give the money to the Centre Pompidou (the current president, François Hollande is a socialist), but the UMP’s want to award the money to the Picasso museum (the former president, Nicolas Sarkozy, led the UMP0.

To decide this issue the senate has elected a committee of 10 senators: 6 socialists and 4 UMPists, of this group four senators are pro-Hollande socialists and six are pro-Sarkozy UMPists.

1) What percentage of the committee is socialist?                                            \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) What percentage of the committee is socialist and pro-Hollande?            \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3) Presupposing that the senators in the above group will vote for

     Pompidou as well as at least one of the pro-Sarkozy senators, will

     Pompidou get the money? Explain why or why not.                                      \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Scoring Rubric**

Question #1

Rubric for grading question #1

* Did the student correctly calculate the percentage of socialist senators?

|  |  |
| --- | --- |
| No. | Yes. |
| 0 points. | 25 points. |

Question # 2

Rubric for grading question #2

Did the student correctly determine the number of pro-Hollande socialists?

|  |  |
| --- | --- |
| No, the student did not determine the correct percentage of pro-Hollande socialists . | Yes, the student correctly determined the correct percentage of pro-Hollande socialists . |
| 0 points. | 25 points. |

Question #3

Rubric for grading question #3

* Did the student correctly determine how many senators will vote to fund the Centre Pompidou?

|  |  |
| --- | --- |
| No, the student did not determine how many senators will vote for the Centre Pompidou. | Yes, the student correctly determined how many senators will vote for the Centre Pompidou. |
| 0 points. | 20 points. |

* Did the student explain correctly why the Centre Pompidou will not get the money (only 50% of the votes) and that another vote will be needed?

|  |  |
| --- | --- |
| No, the student did not correctly explain the outcome of the vote. | Yes, the student correctly explained the outcome of the vote. |
| 0 points. | 30 points. |