1.

The sets and are defined as follows.





Write and using interval notation.
If the set is empty, write .

2.

Graph the system below and write its solution.

|  |  |
| --- | --- |
| https://secure.aleks.com/aleks/gif/student/alge725_bracket.gif | https://secure.aleks.com/alekscgi/x/math2htgif.exe/M?1%7B%23%28%23z%23%3E%237 |
| https://secure.aleks.com/alekscgi/x/math2htgif.exe/M?z%23%3E%23%2E%3Fal%7B%3D2%3Flufq%3D0%3F%2Cal%7B%3D%7B%23%2E%232 |

Note that you can also answer "No solution" or "Infinitely many solutions."

3.

Solve the compound inequality.

|  |  |  |
| --- | --- | --- |
| https://secure.aleks.com/alekscgi/x/math2htgif.exe/M?7z%23%28%231%23%25dw8%23%2E27 | or | https://secure.aleks.com/alekscgi/x/math2htgif.exe/M?0z%23%28%236%23%25dw8%231 |

Write the solution in interval notation.
If there is no solution, enter .