1.   [*3 points*]

Solve the following inequalities:

    (a) $15 - 2x < 31$ (b) $3x^2 \geqslant 2x + 1$

2.   [*5 points*]

Solve the following system of inequalities:

$$\begin{cases} x^2 \geqslant 4x + 21 \\[2mm] \frac{x-2}{4} + \frac{x-1}{2} < 5 \end{cases}$$

3. [4 *points*]

Consider the intervals $A =]-5, 4]$ and $]-\infty, 2]$. Write down:

    (a) $A \cap \mathbb{N}$ (b) $A - B$ (c) $B - A$ (b) B^c

4. [3 *points*]

Shade the set of points that satisfy the following system of inequalities:

$$\begin{cases} x \geqslant -1 \\ y + x < 2 \end{cases}$$