Solve the inequalities for x.

1.
$$6 - 7x > 4$$

2.
$$5x + 2 > -3x - 4$$

3.
$$x^2 - x - 6 \le 0$$

4.
$$x^3 \le 6x^2 - 8x$$

5.
$$\frac{(x-2)(x-1)}{5-x} \le 1$$