

For problems 1 and 2, express the given statement using inequalities.

1. x is in the interval $[-2, 5)$. 2. x is in the interval $(-\infty, \sqrt{5}]$.

For problems 3 and 4, express the given statement using intervals.

3. $3 \leq x$ 4. $\frac{3}{2} < x \leq \pi$ or $x > 9$

5. What is the distance between -7 and -2 ?

For problems 6 through 8 use interval notation to indicate the values of x satisfying the given inequality. Show your work.

6. $x^2 + x \geq 2$ 7. $\frac{(2-x)(x+1)}{x-4} < 0$ 8. $|2x - 1| < 7$