

$$(11) x^2 - 5x + 6 > 0$$

$$(x^2 - 2)(x - 3)$$

$$x = 2 \quad x = 3$$

$$\text{HP: interval } (2, 3) = \{x \mid -2 > x > 3\}$$

$$(12) 3x^2 - 11x - 4 \leq 0$$

$$(3x - 1)(x + 4)$$

$$x = \frac{1}{3} \quad x = -4$$

$$\text{HP: interval } (-4, \frac{1}{3}) = \{x \mid -4 \leq x \leq \frac{1}{3}\}$$

$$(13) 2x^2 + 7x - 15 \geq 0$$

$$(2x - 3)(x + 5)$$

$$x = \frac{3}{2} \quad x = -5$$

$$\text{HP: interval } (-5, \frac{3}{2}) = \{x \mid -5 \leq x \leq \frac{3}{2}\}$$

$$(21) |x+1| < 4$$

$$-4 < x+1 < 4$$

$$-4-1 < x < 4-1$$

$$-5 < x < 3$$

$$(22) |3x+4| < 8$$

$$-8 < 3x+4 < 8$$

$$-8-4 < 3x < 8-4$$

$$-12 < 3x < 4$$

$$-\frac{12}{3} < x < \frac{4}{3}$$

$$-4 < x < \frac{4}{3}$$

$$(23) |\frac{x}{3}-2| \leq 6$$

$$-6 \leq \frac{x}{3}-2 \leq 6$$

$$-6+2 \leq \frac{x}{3} \leq 6+2$$

$$-4 \leq \frac{x}{3} \leq 8$$

$$-4 \times 3 \leq x \leq 8 \times 3$$

$$-12 \leq x \leq 24$$

$$(24) |4x+2| \geq 10$$

$$-10 \leq 4x+2 < 10$$

$$-10-2 \leq 4x < 10-2$$

$$-12 \leq 4x < 8$$

$$-\frac{12}{4} \leq x < \frac{8}{4}$$

$$-3 \leq x < 2$$

$$(25) |2-4x| \geq 10$$

$$-10 \leq 2-4x < 10$$

$$-10-2 \leq -4x < 10-2$$

$$-12 \leq -4x < 8$$

$$-\frac{12}{-4} \leq x < \frac{8}{-4}$$

$$3 \leq x < -2$$

$$(26) |\frac{3x}{5}+1| \leq 4$$

$$-4 \leq \frac{3x}{5}+1 \leq 4$$

$$-4-1 \leq \frac{3x}{5} \leq 4-1$$

$$-5 \leq \frac{3x}{5} \leq 3$$

$$-5 \times 5 \leq 3x \leq 3 \times 5$$

$$-25 \leq 3x \leq 15$$

$$-\frac{25}{3} \leq x \leq \frac{15}{3} = 5$$

$$(27) |\frac{x}{2}+7| > 2$$

$$-2 < \frac{x}{2}+7 > 2$$

$$-2-7 < \frac{x}{2} > 2-7$$

$$-9 < \frac{x}{2} > -5$$

$$-9 \times 2 < x > -5 \times 2$$

$$-18 < x > -10$$