

Résoudre les inéquations suivantes :

1) $3x - 5 \leq 2x + 8$

$S =]-\infty; 13]$

2) $7x + 4 \geq 4x + 19$

$S = [\frac{15}{3}; +\infty[$

3) $2x - 8 < x - 7$

$S =]-\infty; 1[$

4) $3x - 7 < 5x + 2$

$S =]-\frac{9}{2}; +\infty[$

5) $7x - 11 \geq 4x + 7$

$S = [6; +\infty[$

6) $2x + 3 < 4 - 5x$

$S =]-\infty; \frac{1}{7}[$

7) $2(x - 4) \leq 4x - 5$

$S = [-\frac{3}{2}; +\infty[$

8) $\frac{x}{2} + 3 \leq \frac{1}{2}$

$S =]-\infty; -5]$

9) $\frac{x-3}{5} \geq 1$

$S = [8; +\infty[$

10) $\frac{1-3x}{2} < 3-x$

$S =]-\frac{5}{3}; +\infty[$

11) $1 - 2x \geq 7 + x$

$S =]-\infty; -2]$

12) $-3x + 7 < x + 2$

$S =]\frac{5}{4}; +\infty[$

13) $2x - 7 < (3x - 4) - x$

$S = \mathbb{R}$

$$14) \quad 3x - (4 + 3x) > 2$$

$$S = \emptyset$$

$$15) \quad 5x - 3 < 1 - 2x$$

$$S =]-\infty; \frac{4}{7}[$$

$$16) \quad 2(x-3) \geq 9 - 3x$$

$$S = [\frac{14}{5}; +\infty[$$

$$17) \quad 2(x+1) < 3 + 2x$$

$$S =]-\infty; +\infty[\text{ ou } \mathbb{R}$$

$$18) \quad \frac{x-2}{3} - \frac{1-x}{2} \geq 0$$

$$S = [\frac{2}{5}; +\infty[$$

$$19) \quad \frac{x}{2} - \frac{4-x}{4} > 5$$

$$S =]9; +\infty[$$

$$20) \quad 2x - 3 \geq 2 + 4x$$

$$S =]-\infty; -\frac{5}{2}]$$

$$21) \quad 3(3x-1) - 4(x-3) \geq x+3$$

$$S =]-\frac{9}{2}; +\infty[$$

$$22) \quad \frac{x}{2} + \frac{2+3}{4} - 5x < 5$$

$$S =]-1; +\infty[$$

$$23) \quad \frac{x+7}{9} - \frac{3x-2}{2} < \frac{-x+4}{18} - 1 \quad S =]\frac{23}{12}; +\infty[$$

$$24) \quad (x+1)(x+7)+2 \leq (x-5)(x+1)$$

$$S =]-\infty; -\frac{7}{6}]$$

$$25) \quad 2(2x-7) + 2(-3x+4) < -2x+6$$

$$S = \mathbb{R}$$

$$26) \quad \frac{x+3}{3} - \frac{5x-7}{6} > 1 - \frac{4x+1}{8}$$

$$S = \mathbb{R}$$

$$27) \quad \frac{5x+1}{2} - \frac{x-1}{4} \geq \frac{1}{8}$$

$$S = [-\frac{5}{18}; +\infty[$$

$$28) \quad x - 2 - \frac{2}{5} \left(\frac{x}{2} + \frac{1+3x}{4} \right) \leq -2 \quad S =]-\infty; \frac{3}{5}]$$

$$29) \quad \frac{1}{3} \cdot \left(\frac{2x+1}{5} - 1 \right) > \frac{1}{6} \left(2 + \frac{1-4x}{3} \right) \quad S =]\frac{53}{32}; +\infty[$$

$$30) \quad \frac{3}{2} - \frac{2(2x-1)}{7} < \frac{1-2x}{7} - x \quad S = \emptyset$$

$$31) \quad \frac{3+5x}{6} + x - \frac{1}{2} \leq 0 \quad S =]-\infty; 0]$$