■ Inéquations réductibles au premier degré

Résoudre

1) $(3 - x)(2x - 1) \leq 0$

2) $(3 - 4x)(5x - 7) > 0$

3) $-5(x - 7)(x - 1)x \geq 0$

4) $(5 - x)(2x + 1)^2 > 0$

5) $\frac{(5 - 3x)x^2}{2x + 3} \geq 0$

6) $\frac{4x^2 - 9}{x + 1} \geq 0$

7) $\frac{(3 - 4x)(1 - x^2)}{x(x + 2)} \leq 0$

8) $\frac{x^3(3x + 1)(3x + 2)}{x - 3} > 0$

9) $x(x^2 - 9) \leq 9 - x^2$

10) $(x - 1)(x + 4) \geq (x - 2)(x + 1)$

Solutions:

1) $S = \longleftarrow , \frac{1}{2}] \cup [3, \longrightarrow$

2) $S =] \frac{3}{4} , \frac{7}{5} [$

3) $S = \longleftarrow , 0] \cup [1 , 7]$

4) $S = \longleftarrow , -\frac{1}{2}[\cup] -\frac{1}{2} , 5 [$

5) $S =] -\frac{3}{2} , \frac{5}{3}]$

6) $S = [-\frac{3}{2} , -1 [\cup [\frac{3}{2}, \longrightarrow$

7) $S = \longleftarrow , -2[\cup [-1 , 0 [\cup [\frac{3}{4} , 1]$

8) $S = \longleftarrow , -\frac{2}{3}[\cup] -\frac{1}{3} , 0 [\cup] 3, \longrightarrow$

9) $S = \longleftarrow , -3] \cup [-1 , 3]$

10) $S = [\frac{1}{2}, \longrightarrow$

■ Inéquations réductibles au premier degré
Série 2

Résoudre

1) $\frac{x-1}{3-x} \leq \frac{1-x}{x-2}$

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

3) $\frac{x^2}{x+3} \geq x$

4) $\frac{2x^2-1}{x+3} > 2x$

5) $\frac{2x+7}{2x-1} \geq \frac{x+1}{x-1}$

6) $\frac{4x^2-1}{2x} \geq 2x+1$

7) $-\frac{2}{x+2} \leq 3$

8) $\frac{x+1}{x-3} > \frac{1-x}{x}$

9) $\frac{1-4x}{x} \leq 5$

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

Solutions:

1) $S = [\,1\,,\,2\,[\ \cup\ ]\,3,\,\longrightarrow$

2) $S =]\,-\frac{1}{3}\,,\,\frac{2}{11}\,[$

3) $S =]\,-3\,,\,0\,]$

4) $S =]\,-3\,,\,-\frac{1}{6}\,[$

5) $S =]\,\frac{1}{2}\,,\,1\,[\ \cup\ [\,\frac{3}{2},\,\longrightarrow$

6) $S = [\,-\frac{1}{2}\,,\,0\,[$

7) $S = \longleftarrow\,,\,-\frac{8}{3}]\ \cup\ ]\,-2,\,\longrightarrow$

8) $S = \longleftarrow\,,\,0[\ \cup\ ]\,3,\,\longrightarrow$

9) $S = \longleftarrow\,,\,0[\ \cup\ [\,\frac{1}{9},\,\longrightarrow$

10) $S =]\,-1\,,\,-\frac{1}{4}\,]$