Vergelykings en Ongelykhede

Kwadratiese vergelykings A:

(Faktoriseer)

① $2x^2 = 32$

② $(x-5)(x+2) = -10$

③ $2x^2 - 11x + 15 = 0$

Kwadratiese Vergelykings B:

(Formule $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$)

① $4x^2 - 4x - 3 = 0$

② $16x + 12 - x^2 = 0$

③ $5(x+1) = x(x+2)$

④ Los op vir x i.t.v m: $mx - x + mx^2 - 1 = 0$

Kwadratiese Vergelykings C:

(Vierkantsvoltooiing)

① $2x^2 - 11x + 15 = 0$

② $x^2 - 4x + 2 = 0$

MAKSIMUM en MINIMUM van UITDRUKKINGS

(a) $-3x^2 - 2x - 1$

(b) $2x^2 + 3x + 5$

Breuke Vergelykings:

① $\frac{2x-5}{x+3} - \frac{1}{4-x} = \frac{7}{x^2-x-12}$

(2) $\dfrac{x+5}{x^2-2x-3} + \dfrac{1}{x+1} = \dfrac{2}{x-3}$

Wortel Vergelykings:

① $\sqrt{x+3} - 1 - x = 0$

② $\sqrt{2x-1} - \sqrt{x-1} = 1$

SUBSTITUSIE / k-metode:

① $(x^2 - 4x)^2 + 5(x^2 - 4x) + 6 = 0$

(2) $x^2 - 3x - 2 = \dfrac{8}{x^2 - 3x}$

(3) $\sqrt{4+6x-x^2} + x^2 - 6x + 2 = 0$

GELYKTYDIGE VERGELYKINGS:

① $y + 3x = 5$

$y^2 - 3y + 10x = 8x^2 - 18$

② $3x+4y=14$

$x^2+xy-3x-y=0$

③ $3^x \cdot 9^y = 81$

$\left(\frac{2^x}{2^y}\right)^x = 4$

④ Indien $x=2$ en $y=b$ twee oplossings van van die vergelykings $a+xy=3$ en

$$a^2-4xa+4x=8y-xay$$

bepaal die waardes van a en b.

ONGELYKHEDE:

(1) $-x^2+5x+6<0$

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

(3) $x^2-1>0$