Schnittpunkte von Funktionsgraphen

Bestimme die Schnittpunkte

1) $f(x)= -4x - 4$ $g(x)= 2x + 5$

2) $f(x)= 3x - 2$ $g(x)= 1x - 3$

3) $f(x)= 1x + 5$ $g(x)= 2x^2 + 1$

4) $f(x)= 2x + 1$ $g(x)= 1x^2 - 2$

5) $f(x)= -2x + 3$ $g(x)= 2x^2 + 7x + 2$

6) $f(x)= 3x - 3$ $g(x)= -2x^2 - 4x + 5$

7) $f(x)= 1x^2 - 2x + 4$ $g(x)= 2x^2 - 3x + 2$

Lösung

1) $-4x - 4 = 2x + 5$
$-6x = 9$
$x1=-1,5$
$S(-1,5/2)$

2) $3x - 2 = 1x - 3$
$2x = -1$
$x1=-0,5$
$S(-0,5/-3,5)$

3) $1x + 5 = 2x^2 + 1$
$2x^2-1x-4=0$
$x1=1,69$ $x2=-1,19$
x1 in f: $y1=6,69$ $S(1,69/6,69)$
x2 in f: $y1=3,81$ $S(-1,19/3,81)$

4) $2x + 1 = 1x^2 - 2$
$1x^2-2x-3=0$
$x1=3$ $x2=-1$
x1 in f: $y1=7$ $S(3/7)$
x2 in f: $y1=-1$ $S(-1/-1)$

5) $-2x + 3 = 2x^2 + 7x + 2$
$2x^2+9x-1=0$
$x1=0,11$ $x2=-4,61$
x1 in f: $y1=2,78$ $S(0,11/2,78)$
x2 in f: $y1=12,22$ $S(-4,61/12,22)$

6) $3x - 3 = -2x^2 - 4x + 5$
$-2x^2-7x+8=0$
$x1=0,91$ $x2=-4,41$
x1 in f: $y1=-0,28$ $S(0,91/-0,28)$
x2 in f: $y1=-16,22$ $S(-4,41/-16,22)$

7) $1x^2 - 2x + 4 = 2x^2 - 3x + 2$
$1x^2-1x-2=0$
$x1=2$ $x2=-1$
x1 in f: $y1=4$ $S(2/4)$
x2 in f: $y1=7$ $S(-1/7)$