Probleme 1

Bäcker (Sydsaeter S. 719 ff) Haftendorn2013

x=Anzahl der AnnaKuchen in Dutzend(1 dz=12 Stück) y=Anzahl der BertaKuchen in dz

Zutaten−Angabenin kg Gewinn Anna 20 €/dz Berta 30 €/dz

Mehl $\mathbf{me}:=3\cdot x+6\cdot y=150 \rightarrow 3\cdot x+6\cdot y=150$ $\text{solve}(\mathbf{me},y) \rightarrow y=\frac{-(x-50)}{2}$

Zucker $\mathbf{zu}:=x+\frac{1}{2}\cdot y=22 \rightarrow x+\frac{y}{2}=22$ $\text{solve}(\mathbf{zu},y) \rightarrow y=44-2\cdot x$

Butter $\mathbf{bu}:=x+y=27+\frac{1}{2} \rightarrow x+y=\frac{55}{2}$ $\text{solve}(\mathbf{bu},y) \rightarrow y=\frac{55}{2}-x$

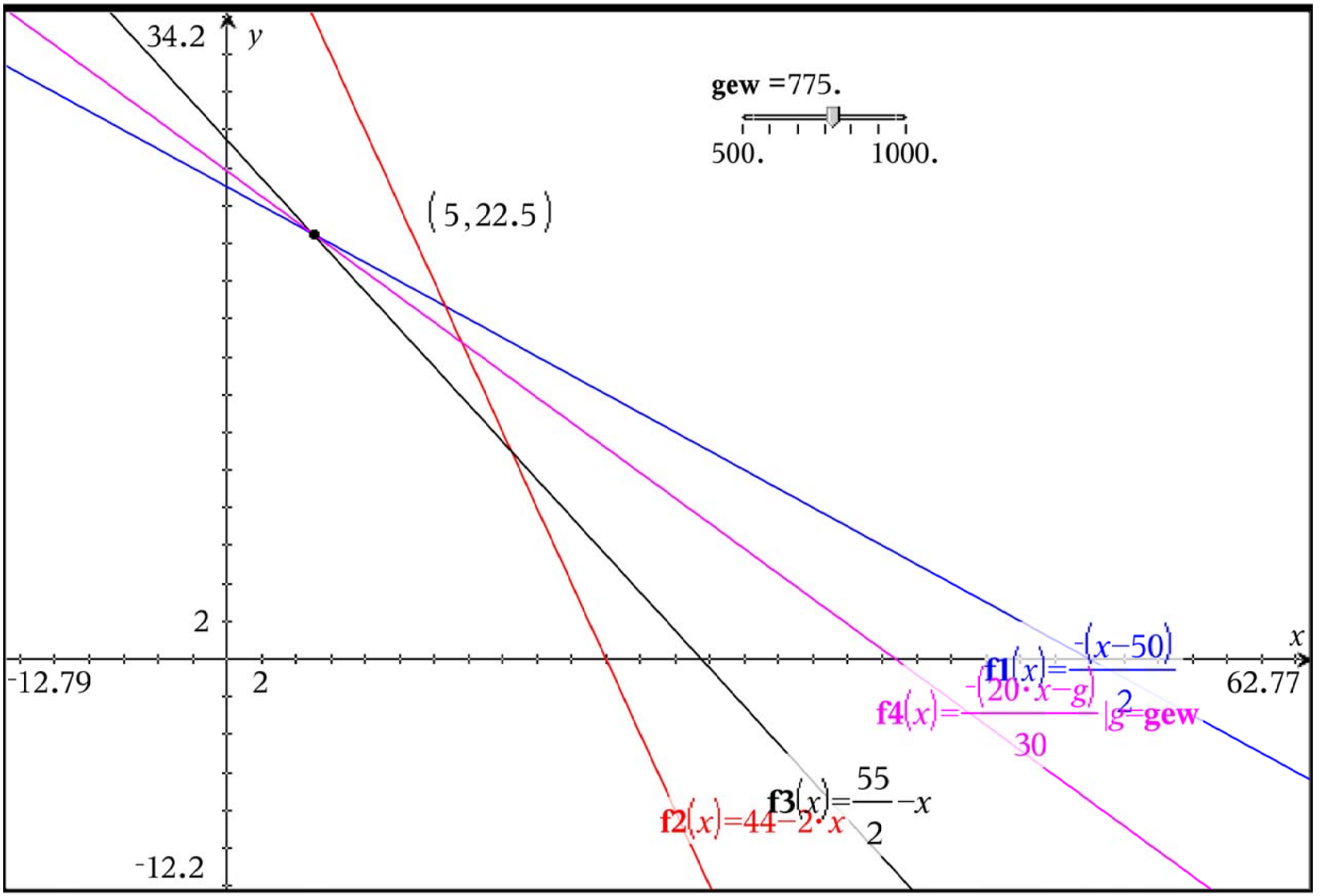
Gewinn $\mathbf{ge}:=g=20\cdot x+30\cdot y \rightarrow g=20\cdot x+30\cdot y$

$\text{solve}(\mathbf{ge},y) \rightarrow y=\frac{-(20\cdot x-g)}{30}$

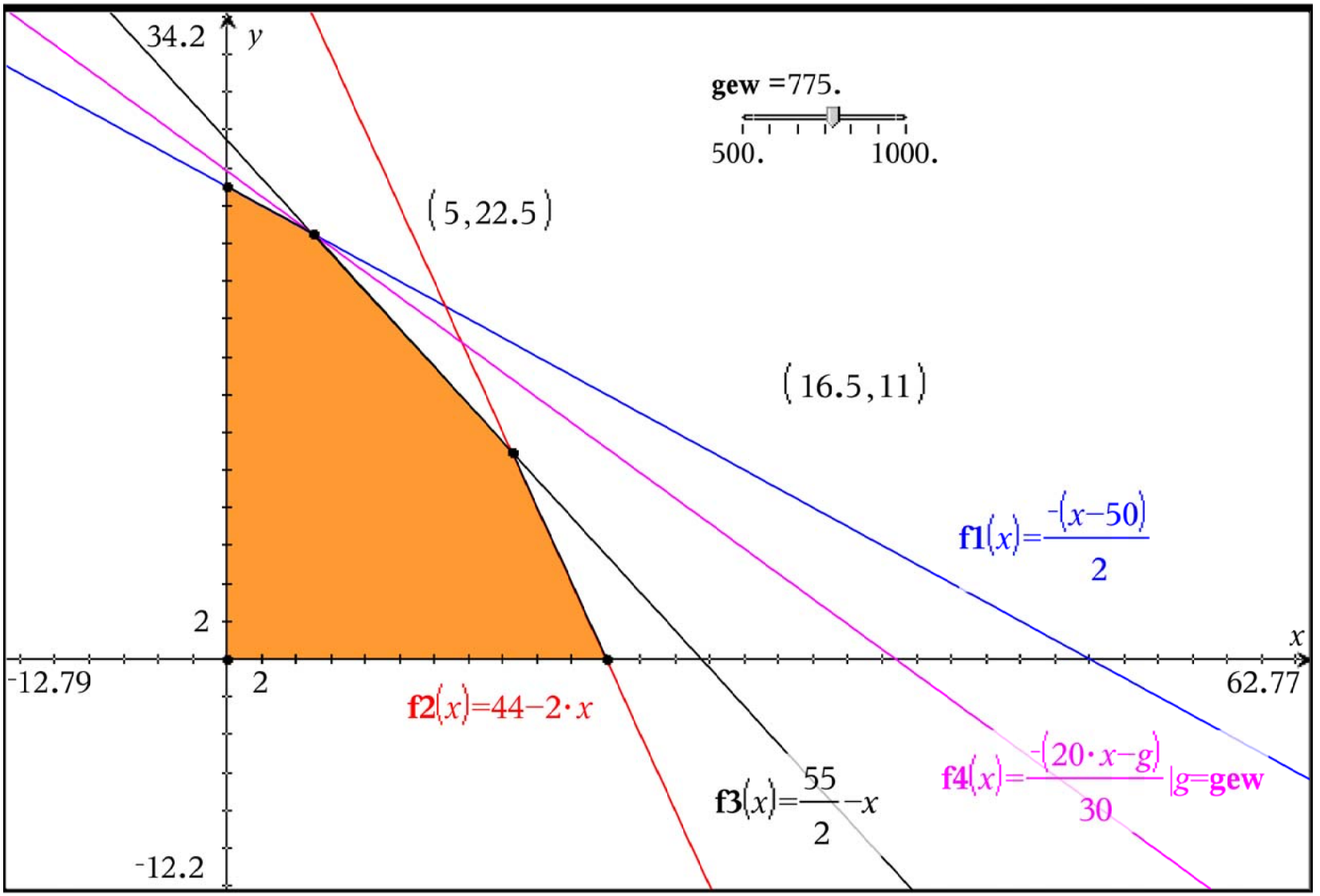
$\mathbf{lo}:=\text{solve}(\{\mathbf{me},\mathbf{bu}\},x,y) \rightarrow x=5 \text{ and } y=\frac{45}{2}$

$\mathbf{ge}|\mathbf{lo} \rightarrow g=775$

1.1


34.2
y
gew =775.
500.
1000.
(5,22.5)
2
-12.79
2
62.77
x
-12.2
f1(x)=-(x-50)/2
f4(x)=-(20·x-g)/30 | g=gew
f3(x)=55/2-x
f2(x)=44-2·x

1.2


34.2
y
gew =775.
500.
1000.
(5,22.5)
(16.5,11)
f1(x)=-(x-50)/2
2
x
-12.79
2
62.77
f2(x)=44-2·x
f3(x)=55/2-x
f4(x)=-(20·x-g)/30 |g=gew
-12.2

1.3

Probleme 2

Bäcker (Sydsaeter S. 719 ff)

x=Anzahl der AnnaKuchen in Dutzend(1 dz=12 Stück) y=Anzahl der BertaKuchen in dz

Zutaten−Angabenin kg Gewinn Anna 20 €/dz Berta 30 €/dz

Mehl $\mathbf{me}:=3\cdot x+6\cdot y=150$ $\text{solve}(\mathbf{me},y)$

Zucker $\mathbf{zu}:=x+\frac{1}{2}\cdot y=22$ $\text{solve}(\mathbf{zu},y)$

Butter $\mathbf{bu}:=x+y=27+\frac{1}{2}$ $\text{solve}(\mathbf{bu},y)$

Gewinn $\mathbf{ge}:=g=20\cdot x+30\cdot y$

$\text{solve}(\mathbf{ge},y)$

$\mathbf{lo}:=\text{solve}(\{\mathbf{me},\mathbf{bu}\},x,y)$

$\mathbf{ge}|\mathbf{lo}$

2.1