

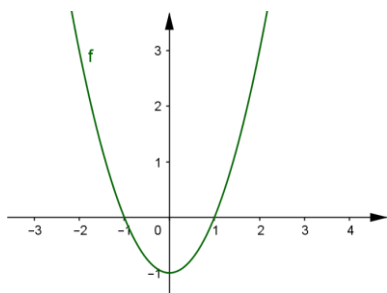
# Facitliste til opgaver 2

## Opg. 201

a. 7,5

## Opg. 202

a.

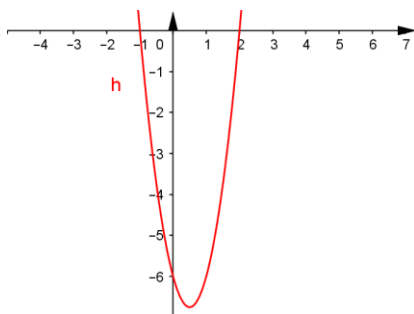


b.  $\frac{22}{3} \approx 7,33$

## Opg. 203

a. 13,5

b.



## Opg. 204

a.  $\frac{16}{3} \approx 5,33$

**Opg. 205**

a.  $x = -2$  ,  $x = 0$  og  $x = 3$

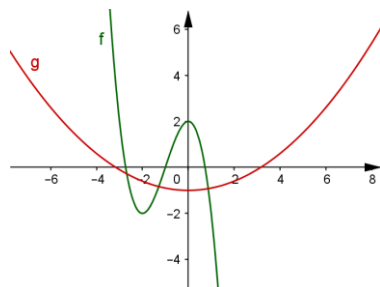
b.  $f$  ligger øverst – arealet  $A_1 = \int_{-2}^0 f(x) - g(x) dx = 5,33$

c.  $g$  ligger øverst – arealet  $A_2 = \int_0^3 g(x) - f(x) dx = 15,75$

d.  $A = 21,08$

**Opg. 206**

a.



b.  $(-2,68 ; -0,28)$  ,  $(-1,29 ; -0,83)$  ,  $(0,87 ; -0,92)$

c.  $A = 5,43$

**Opg. 207**

a.  $\frac{11 \cdot \pi}{2} \approx 17,28$

**Opg. 208**

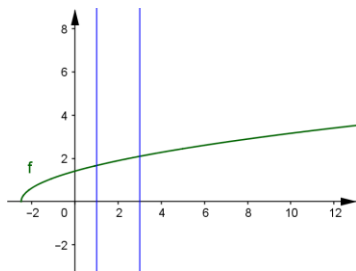
a. 300,15

b. Målene er passende – kruset vil måle ca. 5 cm i bunden og 8 cm i toppen

c.  $\text{cm}^3$  (mL)

Opg. 209

a.



b. 22,62

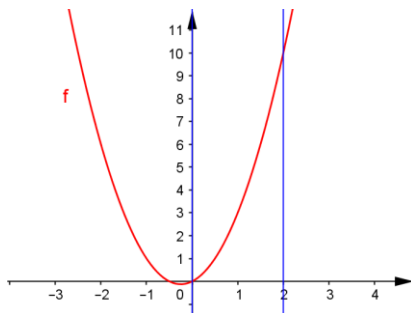
Opg. 210

a. 2,26

b. 8,64

Opg. 211

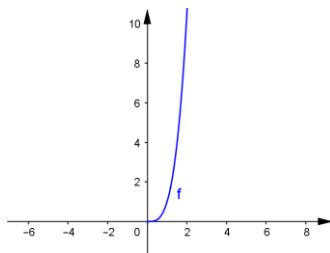
a.



b. 139,07

**Opg. 212**

a.



b. 10,67

c. 4,79

d. 89,76

**Opg. 213**

a. 65,63

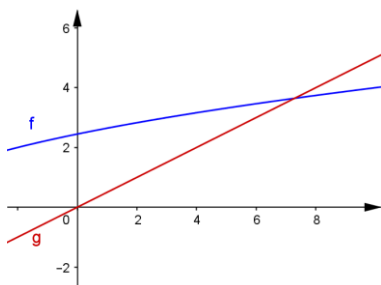
**Opg. 214**

a.  $x = 0$  og  $x = 4,5$

b. 35,21

**Opg. 215**

a.



b. (7,29 ; 3,65)

c. 119,47

**Opg. 216**

a.  $-\frac{1}{3}\cos(3x+1)+k$

b.  $\frac{1}{3}(2x-4)^{3/2}+k$

**Opg. 217**

a.  $\frac{1}{7}\sin(7x+1)+k$

b.  $\ln|x^2-1|+k$

**Opg. 218**

a.  $\frac{1}{2}(x^2+1)^4+k$

b.  $\ln|x^3-2|+k$

**Opg. 219**

a.  $\frac{1}{3}(x^3+1)^3+k$

b.  $\frac{1}{2}\ln(x^4+4)+k$

**Opg. 220**

a.  $-\cos(x^2+2)+k$

b.  $\frac{4}{3}(x^2+3)^{3/2}+k$

**Opg. 221**

- a. 496
- b. 0

**Opg. 222**

a.  $\frac{2}{3} \cdot 2^{3/2} = \frac{4}{3} \cdot \sqrt{2} \approx 1,89$

**Opg. 223**

- a. 4,5
- b. 6,13
- c. 10,37
- d. 67,86

**Opg. 224**

- a.  $\frac{609}{4} = 152,25$
- b. 0
- c.  $\frac{2}{3}(9^{3/2} - 4^{3/2}) = \frac{38}{3} \approx 12,67$

**Opg. 225**

a.  $1 \cdot 2 + 9 \cdot 2 = 20$

b.  $\frac{64}{3} \approx 21,33$

c. 6,25%

- d. Ved inddeling i 4 rektangler bliver arealet 21,00, og den %-vise afvigelse 1,56%  
Ved inddeling i 8 rektangler bliver arealet 21,25, og den %-vise afvigelse 0,39%  
Ved inddeling i 16 rektangler bliver arealet 21,3125, og den %-vise afvigelse 0,098%  
Ved inddeling i 32 rektangler bliver arealet 21,3281, og den %-vise afvigelse 0,024%