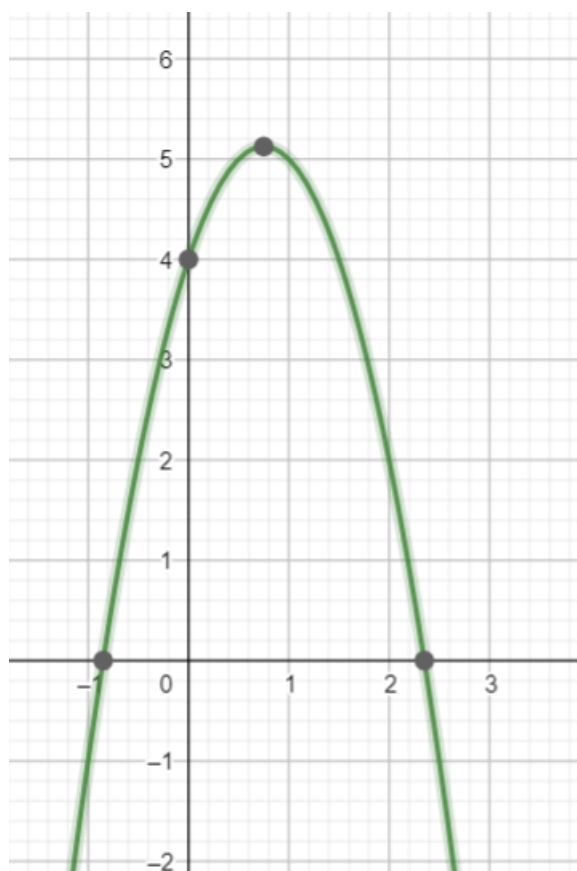


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|  | Navn:         |  | Skole:                     |                  |
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## Opgave 364



Start med at finde skæringpunkter med x-aksen

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

$$a = -1$$

$$b = 3$$

$$c = 4$$

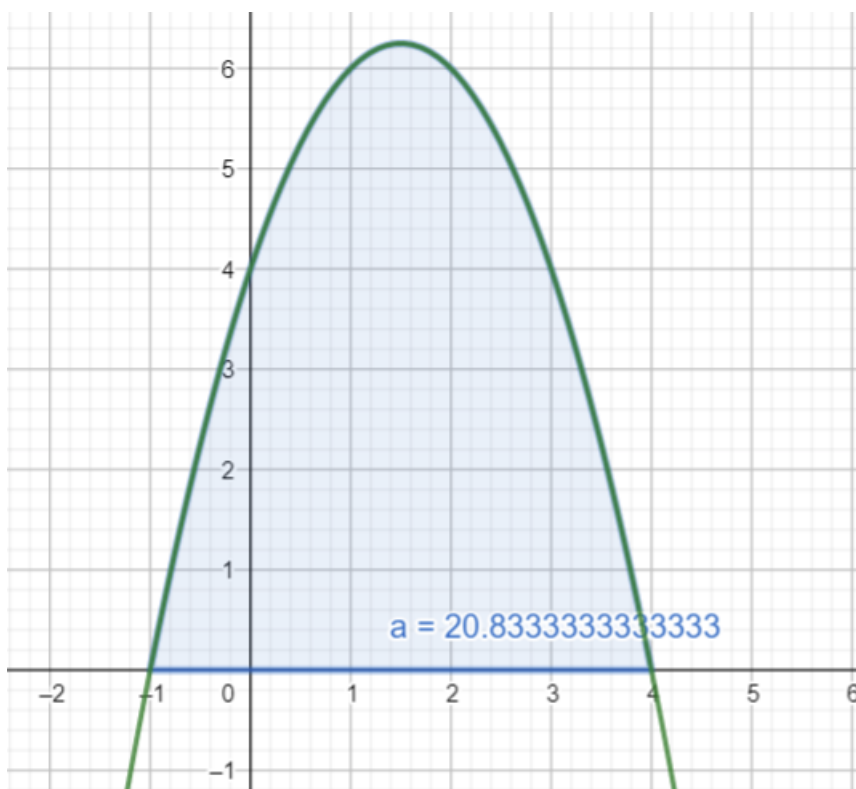
$$x_{1,2} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x_{1,2} = \frac{-3 \pm \sqrt{3^2 - 4 \cdot (-1) \cdot 4}}{2 \cdot (-1)}$$

$$x_1 = \frac{-3 + \sqrt{3^2 - 4 \cdot (-1) \cdot 4}}{2 \cdot (-1)} = -1$$

$$x_2 = \frac{-3 - \sqrt{3^2 - 4 \cdot (-1) \cdot 4}}{2 \cdot (-1)} = 4$$

|  |               |  |                            |                  |
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$$\int_{-1}^4 -x^2 + 3x + 4 \, dx$$

$$\text{Define: } F(x) = -\frac{1}{3}x^3 + \frac{3}{2}x^2 + 4x$$

$$A = F(4) - F(-1) \approx 20,83333$$