

Arbeidshefte

Rasjonale uttrykk

Faktorisering

Kvadratsetningene

$$(a + b)^2 = a^2 + 2ab + b^2$$

$$(a - b)^2 = a^2 - 2ab + b^2$$

Konjungatsetningen

$$(a + b)(a - b) = a^2 - b^2$$

abc-formelen

$$ax^2 + bx + c = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = x_1 \vee x = x_2$$

$$ax^2 + bx + c = a(x - x_1)(x - x_2)$$

Produktmetoden

$$x^2 + bx + c = (x + x_1)(x + x_2)$$

$$x_1 + x_2 = b$$

$$x_1 \cdot x_2 = c$$

Oppgave 1

1) $\frac{x^2-12x+36}{2x^2-72} =$

2) $\frac{x^2+10x+25}{2x^2-50} =$

3) $\frac{x^2-8x+16}{x-4} =$

Oppgave 2

1) $\frac{x^2-6x+9}{x-3} =$

2) $\frac{3x^2-27}{x+3} =$

3) $\frac{x^2-4xy+4y^2}{3xy-6y^2} =$

4) $\frac{9x^2-25}{3x+5} =$

Oppgave 3

1) $\frac{x^2+6x+5}{x+1} =$

2) $\frac{x^2-3x-40}{x+5} =$

3) $\frac{x^2+4x-21}{x-3} =$

4) $\frac{x^2-x-42}{x+6} =$

Oppgave 4

1) $\frac{x^2+2x-35}{x+7} =$

2) $\frac{x^2+5x+4}{x+1} =$

3) $\frac{x^2+7x+10}{x+2} =$

4) $\frac{x^2+9x+8}{x+8} =$

Oppgave 5

1) $\frac{x^2-9x+8}{x-1} =$

2) $\frac{9x^2-27x-36}{x-4} =$

3) $\frac{x^2-4x-45}{x+5} =$

Oppgave 6

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

2) $\frac{4x^2-7x-2}{4x+1} =$

3) $\frac{2x^2-7x-15}{x-5} =$

4) $\frac{2x^2-x-21}{x+3} =$

Oppgave 7

$$1) \frac{2x^2+4x-6}{x^2-9} =$$

$$2) \frac{6x^2-5x+1}{2x^2-x} =$$

$$3) \frac{x^2-1}{x^2-x-2} =$$

$$4) \frac{2x-1}{2x^2+3x-2} =$$

Oppgave 8

1) $\frac{1-x^2}{x^2-x-2} =$

2) $\frac{x^2+x-2}{x-1} =$

3) $\frac{2x^2+4x-6}{x+3} =$

4) $\frac{x^2+5x-14}{x-2} =$

Dette arbeidshefte :



Løsningsforslag :



10/03/24