Exercice .1 — Maths-inter.ma — **1.**

Calculer et simplifier :

$$A = \left((-3+5) \times \frac{2}{7}\right) \div \frac{5}{21}$$

$$B = \left(\frac{-2}{3}\right)^2 - \frac{5}{21} \times \frac{14}{15}$$

$$C = \frac{2 + \dfrac{3}{4}}{5} \times \frac{40}{3} - \frac{7}{6}$$

Exercice .2 — Maths-inter.ma — **2.**

Calculer et simplifier :

$$D = \left(-3 + \frac{1}{5}\right) \times \frac{2}{3 + \dfrac{1}{5}} \times \frac{3}{7}$$

$$E = \frac{2 + \dfrac{3}{4} - \dfrac{1}{3}}{3 + \dfrac{3}{2} - \dfrac{1}{6}}$$

$$F = \frac{\left(2 + \dfrac{3}{2}\right) \times \dfrac{1}{5}}{\left(3 + \dfrac{3}{5}\right) \times \dfrac{1}{2}}$$

Exercice .3 — Maths-inter.ma — **3.**

Calculer et simplifier :

$$A = \frac{(5 + \sqrt{2})(5 - \sqrt{2})}{(3 + \sqrt{5})(3 - \sqrt{5})}$$

$$B = \frac{\dfrac{1}{4 + \sqrt{3}} + \dfrac{1}{4 - \sqrt{3}}}{\dfrac{1}{4 + \sqrt{3}} - \dfrac{1}{4 - \sqrt{3}}}$$

$$C = \frac{\left(\sqrt{5} + \sqrt{3}\right)^2 - \left(\sqrt{5} - \sqrt{3}\right)^2}{\left(\sqrt{7} + \sqrt{3}\right)\left(\sqrt{7} - \sqrt{3}\right)}$$

Exercice .4 — Maths-inter.ma — **4.**

Développer puis simplifier :

$$A = (-3x + 2)(-2x - 4) - 3(x - 6)(2x + 5)$$

$$B = (-7x^3 + 5)(-2x^2 + 3x - 1) - 5x^3(2x^2 + 3x - 6) - 4x^5 + 35x^4 - 35x^3 + \sqrt{2008}$$

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

Exercice .5 — Maths-inter.ma — **5.**

Développer puis simplifier :

$$A = (\sqrt{5} - x)(\sqrt{5} + x) + 3x^2 - 7x(2x - 1)$$

$$B = (x\sqrt{3} - y)^2 - 3x^2 + 2y^2 + 3xy\sqrt{3} - 5$$

$$C = (3x\sqrt{7} + 2)^2 - 64x^2 - 13x\sqrt{7} + 11\sqrt{5}$$

$$D = (x\sqrt{11} + y\sqrt{3})^2 - 12x^2 - 6y^2 - 13xy\sqrt{33}$$

Exercice .6 — Maths-inter.ma — **6.**

Factoriser les expressions suivantes :

$$A = (4x^2 - 25) - (x - 6)(2x + 5)$$

$$B = (3x - 7)^2 - (9x^2 - 49) - 5x(3x - 7)$$

$$C = 25x^2 - 30x + 9 + (3x - 7)(5x - 3) - 10x + 6$$

Exercice .7 — Maths-inter.ma — **7.**

Factoriser les expressions suivantes :

$$E = (3x - 1)^2 - 25$$

$$F = (3x - 1)^2 - 7$$

$$H = (3x - 1)^2 - (x - 3)^2$$

$$K = 2(3x - 1)^2 - (x - 3)^2$$

$$M = (2x - 7)^2 - 16$$

$$T = 81(3x - 2)^2 - 16$$

Exercice .8 — Maths-inter.ma — **8.**

Factoriser les expressions suivantes :

$$(x^2 - 9) - (x - 3)(2x - 5) = 0$$

$$(2x - 3)^2 - (4x^2 - 9) + 3x(2x - 3) = 0$$

$$(5x + 3)^2 + (3x - 7)(5x + 3) - 10x - 6 = 0$$

$$(\sqrt{2}x - 3)^2 - (2x^2 - 9) + 3x(\sqrt{2}x - 3) = 0$$

Bonne Chance