

$$x-1; x; x+1$$

Leslie: $(x+1)2(x-1) = 2(x+1)(x-1)$

Jon: $x^2 + 2$

1. $11 \times (2 \times 9) \rightarrow L \quad / \quad 10^2 + 2 \rightarrow J$

a. $11 \times (2 \times 9) = 198$

$$10^2 + 2 = 102$$

b. $11 \times (2 \times 9) \Rightarrow \begin{matrix} \uparrow & \uparrow \\ x+1 & x-1 \end{matrix} \Rightarrow \begin{matrix} x+1=11 \Rightarrow x=10 \\ x-1=9 \Rightarrow x=10 \end{matrix}$

$$\hookrightarrow 9; 10; 11$$

$$\begin{matrix} 10^2 + 2 \\ \uparrow \\ x^2 \end{matrix} \Rightarrow x^2 = 10^2 \Rightarrow x = 10$$

$$\hookrightarrow 9; 10; 11$$

2. $2(x+1)(x-1) = x^2 + 2$

$$2(x^2 - 1) = x^2 + 2$$

$$2x^2 - 2 = x^2 + 2$$

$$x^2 - 4 = 0$$

$$\boxed{x^2 = 4} \Rightarrow x_1 = 2; x_2 = -2$$

2 possibilités: $(1; 2; 3)$

$(-3; -2; -1)$

$$\text{Si } x=6 \Rightarrow 5; 6; 7$$

$$\text{Leslie: } 2 \times 5 \times 7 = 70$$

$$\text{Jon: } 6^2 + 2 = 38$$

\Rightarrow Non

$$\text{Si } x=-7 \quad -8; -7; -6$$

$$\text{Leslie: } 2(-8)(-6) = 96$$

$$\text{Jon: } (-7)^2 + 2 = 51$$

\Rightarrow Non

3. Oui, voir calcul en 2.