

| السنة الثالثة ثانوي إعدادي                                 |  | النشر والتعميل - القوى - الجذور المربعة                                                                                                                                               | فروض النجاح<br>استعدادا لاجتياز فروضك |
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| فرض تجريبي من اقتراح أذ سمير لخريسي - مدة الانجاز 55 دقيقة |  |                                                                                                                                                                                       |                                       |
|                                                            |  | <b>تمرين 1 :</b><br>انشر و بسط : $A = x(x+1) + 5x$ ، $B = (3+x)^2$ ، $D = (3+x)(1-x)$<br>عمل : $E = x + 3x^2$ ، $F = x(x+3) + 5x + 15$ ، $G = (2x+1)^2 - 25$                          |                                       |
|                                                            |  | <b>تمرين 2 :</b> بسط : $A = a^2 \times (a^3)^5$ ، $B = \frac{a^{12}}{a \times a^3}$ ، $C = 27^2 \times 100^3$                                                                         |                                       |
|                                                            |  | <b>تمرين 3 :</b> أحسب : $A = \sqrt{1 + \sqrt{64}}$ ، $B = \sqrt{5} \times \sqrt{15} \times \sqrt{3}$ ، $C = (\sqrt{5} + \sqrt{3})^2$                                                  |                                       |
|                                                            |  | <b>تمرين 4 :</b> بسط : $A = \frac{3}{\sqrt{5}}$ ، $B = 2\sqrt{3} + \sqrt{27} - \sqrt{300}$ ، $C = \frac{2}{2 + \sqrt{3}}$ ، $D = \frac{1}{\sqrt{2}} + \frac{5\sqrt{2}}{2 - \sqrt{2}}$ |                                       |
|                                                            |  | <b>تمرين 5 :</b> أحسب : $K = (\sqrt{3} - \sqrt{2})^{2014} \times (\sqrt{3} + \sqrt{2})^{2014}$ و $L = (1 + \sqrt{2})^4$                                                               |                                       |

| فروض النجاح<br>استعدادا لاجتياز فروضك                                                                                                                                                                                                                                                                                                  |  | النشر والتعميل - القوى - الجذور المربعة<br>حل مقترح                                                                                                |                                                                                                                                                                                                                                      | السنة الثالثة ثانوي إعدادي                                                    |  |
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| فرض تجريبي من اقتراح أذ سمير لخريسي - مدة الانجاز 55 دقيقة                                                                                                                                                                                                                                                                             |  |                                                                                                                                                    |                                                                                                                                                                                                                                      |                                                                               |  |
| تمرين 1 :                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                    |                                                                                                                                                                                                                                      |                                                                               |  |
| $D = (3 + x)(1 - x)$<br>$D = 3 - 3x + x - x^2$<br>$D = 3 - 2x - x^2$                                                                                                                                                                                                                                                                   |  | $B = (3 + x)^2$<br>$B = 3^2 + 2 \times 3 \times x + x^2$<br>$B = 9 + 6x + x^2$                                                                     |                                                                                                                                                                                                                                      | $A = x(x + 1) + 5x$<br>$A = x^2 + x + 5x$<br>$A = x^2 + 6x$                   |  |
| $G = (2x + 1)^2 - 25$<br>$G = (2x + 1)^2 - 5^2$<br>$G = [(2x + 1) + 5][(2x + 1) - 5]$<br>$G = (2x + 6)(2x - 4)$                                                                                                                                                                                                                        |  | $F = x(x + 3) + 5x + 15$<br>$F = x(x + 3) + 5(x + 3)$<br>$F = (x + 3)(x + 5)$                                                                      |                                                                                                                                                                                                                                      | $E = x + 3x^2$<br>$E = x(1 + 3x)$                                             |  |
| تمرين 2 :                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                    |                                                                                                                                                                                                                                      |                                                                               |  |
| $C = 27^2 \times 100^3$<br>$C = (3^3)^2 \times (10^2)^3$<br>$C = 3^6 \times 10^6$<br>$C = (3 \times 10)^6$<br>$C = 30^6$                                                                                                                                                                                                               |  | $B = \frac{a^{12}}{a \times a^3}$<br>$B = \frac{a^{12}}{a^4} = a^{12-4} = a^8$                                                                     |                                                                                                                                                                                                                                      | $A = a^2 \times (a^3)^5$<br>$A = a^2 \times a^{15}$<br>$A = a^{17}$           |  |
| تمرين 3 :                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                    |                                                                                                                                                                                                                                      |                                                                               |  |
| $C = (\sqrt{5} + \sqrt{3})^2$<br>$C = (\sqrt{5})^2 + 2 \times \sqrt{5} \times \sqrt{3} + (\sqrt{3})^2$<br>$C = 5 + 2\sqrt{15} + 3$<br>$C = 8 + 2\sqrt{15}$                                                                                                                                                                             |  | $B = \sqrt{5} \times \sqrt{15} \times \sqrt{3}$<br>$B = \sqrt{5} \times \sqrt{3} \times \sqrt{15}$<br>$B = \sqrt{15} \times \sqrt{15}$<br>$B = 15$ |                                                                                                                                                                                                                                      | $A = \sqrt{1 + \sqrt{64}}$<br>$A = \sqrt{1 + 8}$<br>$A = \sqrt{9}$<br>$A = 3$ |  |
| تمرين 4 :                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                    |                                                                                                                                                                                                                                      |                                                                               |  |
| $B = 2\sqrt{3} + \sqrt{27} - \sqrt{300}B$<br>$b = 2\sqrt{3} + \sqrt{9 \times 3} - \sqrt{100 \times 3}$<br>$B = 2\sqrt{3} + 3\sqrt{3} - 10\sqrt{3}B$<br>$B = 5\sqrt{3} - 10\sqrt{3} = -5\sqrt{3}$                                                                                                                                       |  |                                                                                                                                                    | $A = \frac{3}{\sqrt{5}} = \frac{3 \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} = \frac{3\sqrt{5}}{5}$                                                                                                                                  |                                                                               |  |
| $D = \frac{1}{\sqrt{2}} + \frac{5\sqrt{2}}{2 - \sqrt{2}} = \frac{1 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}} + \frac{5\sqrt{2} \times (2 - \sqrt{2})}{(2 - \sqrt{2}) \times (2 - \sqrt{2})}$<br>$D = \frac{\sqrt{2}}{2} + \frac{10\sqrt{2} - 10}{4 - 2} = \frac{\sqrt{2}}{2} + \frac{10\sqrt{2} - 10}{2} = \frac{11\sqrt{2} - 10}{2}$ |  |                                                                                                                                                    | $C = \frac{2}{2 + \sqrt{3}} = \frac{2 \times (2 - \sqrt{3})}{(2 + \sqrt{3}) \times (2 - \sqrt{3})}$<br>$C = \frac{4 - 2\sqrt{3}}{2^2 - (\sqrt{3})^2} = \frac{4 - 2\sqrt{3}}{4 - 3} = \frac{4 - 2\sqrt{3}}{1}$<br>$C = 4 - 2\sqrt{3}$ |                                                                               |  |
| تمرين 5 :                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                    |                                                                                                                                                                                                                                      |                                                                               |  |
| $L = (1 + \sqrt{2})^4 = [(1 + \sqrt{2})^2]^2 = (1 + 2\sqrt{2} + 2)^2$<br>$L = (3 + 2\sqrt{2})^2 = 9 + 12\sqrt{2} + 8 = 17 + 12\sqrt{2}$                                                                                                                                                                                                |  |                                                                                                                                                    | $K = (\sqrt{3} - \sqrt{2})^{2014} \times (\sqrt{3} + \sqrt{2})^{2014}$<br>$K = [(\sqrt{3} - \sqrt{2}) \times (\sqrt{3} + \sqrt{2})]^{2014} = (3 - 2)^{2014} = 1^{2014} = 1$                                                          |                                                                               |  |