

الف) $y = \frac{(x-2)(x-3)(x-4)}{x^2-5x+6}$ ب) $y = \frac{(x-2)(x-3)^2(x-4)}{x^2-5x+6}$	6
الف) $y = \frac{(x-2)(x-4)}{x-3} \rightarrow$ ب) $y = \frac{(x-2)(x-4)}{(x-3)^2}$	7
الف) $y = \frac{x^3-3x+2}{x-3} \Rightarrow \frac{x^3-3x+2}{x^2-3x+2} \cdot \frac{x-1}{x-1} \rightarrow \frac{(x-1)(x-1)(x+2)}{(x-1)(x+2)} \rightarrow \frac{-2}{x-3}$ ب) $y = \frac{x^3-3x+2}{x^2-4x+3} = \frac{(x-1)(x-2)}{(x-1)(x-3)} \rightarrow \frac{1}{x-3}$	8
الف) $y = \frac{x^4-x^2}{x^2+x+2} \rightarrow x^2(x^2-1) \rightarrow x^2(x-1)(x+1)$ ب) $y = \frac{x^2+3x+2}{x^2+2x+3} \rightarrow \Delta = 9-12 = -3 \rightarrow$ محاوره مثبت $\Delta = 4-12 = -8 \rightarrow$ محاوره مثبت است.	9
الف) $y = \sqrt{\frac{x^3-1}{x^3-x}} \Rightarrow \frac{(x-1)(x^2+x+1)}{x(x^2-1)} \rightarrow \frac{(x-1)(x^2+x+1)}{x(x-1)(x+1)} \rightarrow \frac{1}{x+1}$ ب) $y = \sqrt{\frac{x^2-16}{x^2-2x+8}} \Rightarrow \frac{(x-4)(x+4)}{(x-1)(x-4)} \rightarrow \frac{x+4}{x-1}$	10