

Fiche n° 18. Sommes et produits

Réponses

18.1 a) $\boxed{n(n+2)}$

18.1 b) $\boxed{\frac{7(n+1)(n+4)}{2}}$

18.1 c) $\boxed{\frac{n(5n+1)}{2}}$

18.1 d) $\boxed{\frac{(n-2)(n-7)}{6}}$

18.2 a) $\boxed{\frac{n(n+1)(n+2)}{3}}$

18.2 b) ... $\boxed{n(n+1)(n^2+n+4)}$

18.2 c) $\boxed{\frac{9}{2}(3^{n-2}-1)}$

18.2 d) $\boxed{\frac{5^{n+1}-2^{n+1}}{3}}$

18.2 e) ... $\boxed{\frac{7}{6}(7^n-1)+n(n+4)}$

18.2 f) $\boxed{\frac{n+1}{2n}}$

18.3 a) $\boxed{2^{q-p+1}}$

18.3 b) $\boxed{3^{\frac{n(n+1)}{2}}}$

18.4 a) $\boxed{5^n(n!)^{\frac{3}{2}}}$

18.4 b) $\boxed{0}$

18.5 a) $\boxed{\frac{n(n+1)}{2}}$

18.5 b) $\boxed{0}$

18.5 c) $\boxed{n2^{n+1}+2(1-2^n)}$

18.5 d) $\boxed{\frac{n^2(n+1)^2}{4}}$

18.6 a) $\boxed{(n+3)^3-2^3}$

18.6 b) $\boxed{\ln(n+1)}$

18.6 c) $\boxed{1-\frac{1}{(n+1)!}}$

18.6 d) $\boxed{(n+1)!-1}$

18.7 a) $\boxed{n+1}$

18.7 b) $\boxed{1-4n^2}$

18.7 c) $\boxed{\frac{1}{n}}$

18.7 d) $\boxed{\frac{n+1}{2n}}$

18.8 a) $\boxed{1-\frac{1}{n+1}}$

18.8 b) $\boxed{\frac{1}{2}-\frac{1}{n+3}}$

18.9 a) $\boxed{2n^2+n}$

18.9 b) $\boxed{\frac{n(3n+1)}{2}}$

18.10 a) $\boxed{\frac{n^2(n+1)}{2}}$

18.10 b) $\boxed{\frac{n(n+3)}{4}}$

18.10 c) $\boxed{\frac{n(n^2-1)}{2}}$

18.10 d) . $\boxed{\frac{n(n+1)(7n^2+13n+4)}{12}}$

18.10 e) $\boxed{\frac{n(n+1)}{2}\ln(n!)}$

18.10 f) $\boxed{\frac{n(n+1)(4n-1)}{6}}$