Corrigé exercice 32 :

1. $(n+1) \times n! = (n+1) \times n \times (n-1) \times \ldots \times 2 \times 1 = (n+1)!$

2. $\dfrac{(n+2)!}{(n+1)(n+2)} = \dfrac{(n+2) \times (n+1) \times n \times (n-1) \times \ldots \times 2 \times 1}{(n+2)(n+1)} = n!$

3. $\dfrac{(n+5)!}{(n+7)!} = \dfrac{(n+5)!}{(n+7)(n+6) \times (n+5)!} = \dfrac{1}{(n+7)(n+6)}$

Corrigé exercice 33 :

1. $\dfrac{1}{3 \times 2 \times 1} = \dfrac{1}{3!}$

2. $5 \times 3 \times 2 \times 4 = 5!$

3. $8 \times 7 \times 6 = 8 \times 7 \times 6 \times \dfrac{5 \times 4 \times 3 \times 2 \times 1}{5 \times 4 \times 3 \times 2 \times 1} = \dfrac{8!}{5!}$

4. $\dfrac{1}{13 \times 14} = \dfrac{12!}{14 \times 13 \times 12!} = \dfrac{12!}{14!}$