

1.  $\int_0^1 x^2 dx = \frac{1}{3}$   
 $\int_0^1 x^3 dx = \frac{1}{4}$   
 $\int_0^1 x^4 dx = \frac{1}{5}$   
 $\int_0^1 x^5 dx = \frac{1}{6}$   
 $\int_0^1 x^6 dx = \frac{1}{7}$

### 1. University Officers

- (1)  $\int_0^1 x^2 dx = \frac{1}{3}$   
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- (2)  $\int_0^1 x^2 dx = \frac{1}{3}$   
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- (3)  $\int_0^1 x^2 dx = \frac{1}{3}$   
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- (4)  $\int_0^1 x^2 dx = \frac{1}{3}$   
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### 2. University Graduates

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$\frac{1}{(1-x)^2} = \sum_{n=0}^{\infty} (n+1)x^n$  (1)

$\frac{1}{(1-x)^3} = \sum_{n=0}^{\infty} \binom{n+2}{2} x^n$  (2)

(c)  $\frac{1}{(1-x)^4} = \sum_{n=0}^{\infty} \binom{n+3}{3} x^n$

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