# DIFFERENTIATION & FUNCTIONS (Q 6, 7 & 8, PAPER 1)

### LESSON NO. 2: DIFFERENTIATING FROM FIRST PRINCIPLES

#### 2007

8 (b) Differentiate  $x^2 - 3x$  with respect to x from first principles.

#### 2005

6 (b) Differentiate  $3x - x^2$  with respect to x from first principles.

#### 2004

8 (b) Differentiate  $x^2 + 3x$  with respect to x from first principles.

#### 2003

6 (b) Differentiate  $x^2 - 2x$  with respect to x from first principles.

#### 2001

8 (b) Differentiate  $3x^2 - x$  from first principles with respect to x.

## 2000

6 (a) Differentiate 7x + 3 from first principles with respect to x.

#### 1999

6 (b) Differentiate from first principles

 $x^{2} + 5x$ 

with respect to x.

#### 1997

6 (b) Differentiate from first principles

 $3x^2 - 2$ 

with respect to *x*.

#### 1996

7 (a) Differentiate from first principles

3x - 7

with respect to x.

Answers	
2007	8 (b) $2x-3$
2005	6 (b) $3-2x$
2004	8 (b) $2x + 3$
2003	8 (b) $2x-2$
2001	8 (b) $6x - 1$
2000	6 (a) 7
1999	6 (b) $2x + 5$
1997	6 (b) 6 <i>x</i>
1996	7 (a) 3