## Differentiation \& Functions (Q 6, 7 \& 8, Paper 1)

## Lesson No. 2: Differentiating from First Principles

## 2007

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

## 2005

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

## 2004

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

2003
6 (b) Differentiate $x^{2}-2 x$ with respect to $x$ from first principles.

2001
8 (b) Differentiate $3 x^{2}-x$ from first principles with respect to $x$.

## 2000

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

## 1999

6 (b) Differentiate from first principles

$$
x^{2}+5 x
$$

with respect to $x$.

## 1997

6 (b) Differentiate from first principles

$$
3 x^{2}-2
$$

with respect to $x$.

## 1996

7 (a) Differentiate from first principles

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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) 6x
1996 7 (a) 3
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