

**Int 2 2000 Paper 1 (Non Calc)**  
**(Old Style includes 'Applications')**

**Section A**

A1. (a) Cumulative; 2, 5, 6, 8, 10

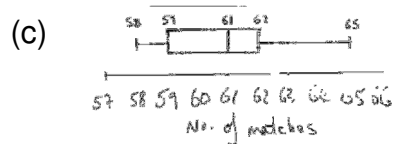
(b)  $\text{Prob}(5, 6, 7) = \frac{5}{16}$

A2.  $y = -2x + 10$

A3.  $(3a + 5b)(3a - 5b)$

A4.  $\text{BAC} = 25^\circ$

A5. (a)  $Q_2 = 61, Q_1 = 59, Q_3 = 62$   
(b) Claim true as median is above 60



(d) No, median = 58,  
2 matches below claim of 60.

**Section B**

B6.  $a = 2$

B7.  $b = 2$

B8. (a)  $a$

(b)  $\frac{2\sqrt{3}}{3}$

(c)  $\frac{6x+6}{x(x+3)}$

**Section C**

C6. He has enough, £5.40 extra

C7. (a)  $S = 20\text{m}$

(b)  $t = 5\text{s}$

**Int 2 2000 Paper 2**  
**(Old Style includes 'Applications')**

**Section A**

A1.  $s = 16.4$

A2.  $3x^2 + 3x - 2$

A3. width = 59.4m

A4. Advantage costs less by £0.57

A5. (a)  $3x + 5y = 88.50$   
(b)  $4x + 60y = 113.00$   
(c) car per day = £17  
petrol/litre = £0.75

A6. (a)  $21600 \text{ cm}^3$  (3 s.f.)  
(b)  $x = 3.14 \text{ cm}$

A7.  $AB = 6.2\text{m}$

A8. Perimeter = 58.61 cm

**Section B**

B9. (a)  $s = \frac{qr}{t}$   
(b)  $x = 1.8$  or  $-1.1$

B10. (a) (3, 20)  
(b)  $x = 3$   
(c) B (6, 11)

B11. (a)  $14.5^\circ$  or  $165.5^\circ$   
(b) Proof

Hint;  $\frac{\sin x}{\cos x} = \tan x$

**Section C**

C9. £570

C10. (a) £17 500  
(b) £2 931.15

C11. mean = 89.4 s