

**OCR 1962**  
**Summer 2004**  
**FOUNDATION SOLUTIONS**  
**Paper 1 (Non-calculator)**

1.

(a)(i) 11

(ii) 14

(iii) 20

(iv) 16

(v) 22 and 19

(b) 3062

(c)(i) 1540

(ii) 1500

2.

(a) Cost of the 4 panels at £12 each → £48

Cost of the 5 posts at £4.50 each → £22.50

Cost of the 5 caps at £1.20 each → £6.00

Total = £76.50

(b)  $(4 \times 1.8m) + (5 \times 0.1m) = 7.7m$

3.

(a) *cm*

(b) *g*

(c) *km*

(d) *ml*

4.

(a)  $2 \times 4 = 8cm^2$

(b)(i)  $(3 \times 1) + (5 \times 1) = 8cm^2$

(ii)  $5 + 1 + 2 + 3 + 1 + 3 + 2 + 1 = 18cm$

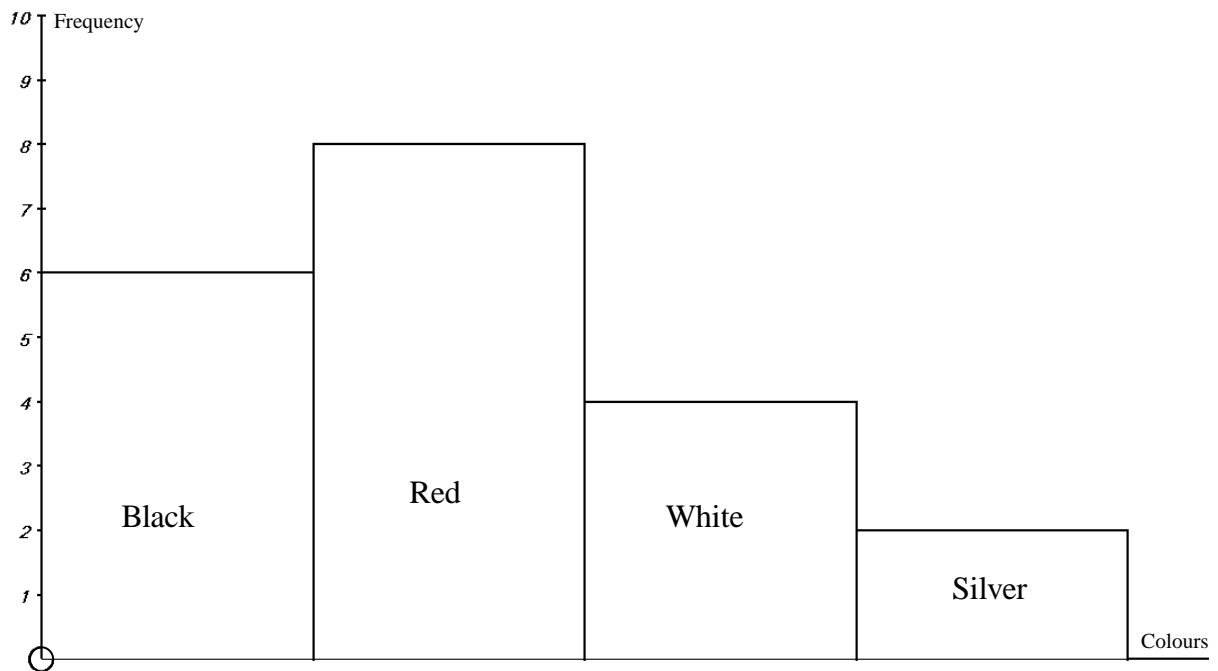
(c) About  $12cm^2$

5.

(a)(i)

Colour	Tally	Frequency
Black		6
Red		8
White		4
Silver		2
		$\Sigma = 20$

(ii)



(b)(i) Arrange the list in order. The median will occur at the  $\frac{n^{th} + 1}{2}$  position  $\rightarrow 5.5^{th}$

position  $\rightarrow 4$

(ii)  $9 - 2 = 7$

(iii)  $\frac{50}{10} = 5$

6.

(a) 9.1cm

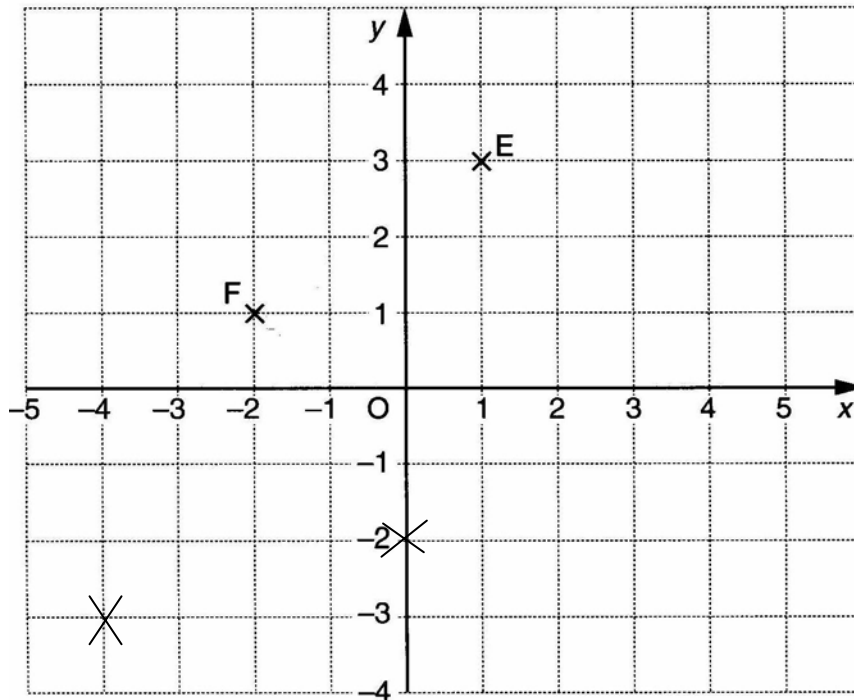
(b)  $f = 50^\circ$  &  $g = 108^\circ$

(c)  $40^\circ \rightarrow$  Angles on a straight line add up to  $180^\circ$

7.

(a) E(1,3) & F(-2,1)

(b) See grid



8.

(a)  $6 \times \text{£}32 = \text{£}192$

(b)  $11 \times 52 = 572$  so the answer is 12

9.

(a)(i)  $7t$

(ii)  $x$

(b)(i)  $2(2) + 3(3) = 13$

(ii)  $3 - 2 + 3\left(\frac{1}{2}\right) = 2\frac{1}{2}$

(c)  $x - 2 = 10 \rightarrow x = 12$

10.

$\text{£}9 - \text{£}1.50 = \text{£}7.50$  which is  $\text{£}2.50 \times 3$

$\rightarrow 3$  games

11.

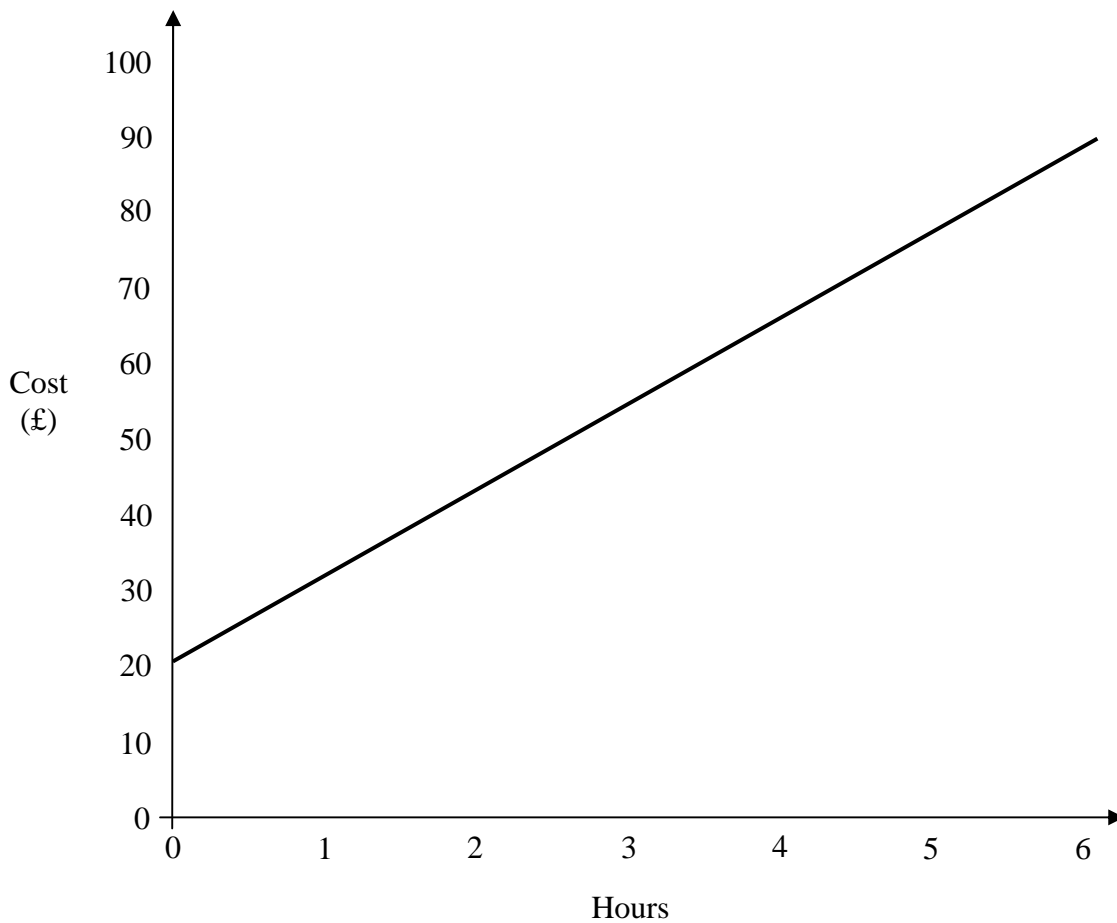
(a) 9000

(b)(i)  $62 \times 10 = \text{£}620$

(ii) It will be smaller as both numbers have been rounded down

12.

(a) See graph



(b) About £92

(c) £20 (y intercept)

(d)  $C = 20 + 12h$

13.

(a)  $\frac{3}{5} + \frac{1}{4} = \frac{12+5}{20} \rightarrow \frac{17}{20}$

(b)  $\pounds 80 \div 4 = \pounds 20 \rightarrow \text{Beth} \rightarrow 3 \times \pounds 20 = \pounds 60$

Lucy  $\rightarrow 1 \times \pounds 20 = \pounds 20$

14.

(a) 229

(b) 213

(c) 19 scores and 7 are less than 200  $\rightarrow \frac{7}{19}$

15.

(a) The diagram should be drawn with base  $10\text{cm}$  and angle  $\text{ABT}$  should remain  $35^\circ$  and also angle  $\text{BTA}$  should still be a right angle

(b) About  $70\text{m}$

(c)(i) On your diagram there should be a mark  $4\text{cm}$  across from B. Call this point P.

(ii) Angle  $\text{APT}$  is about  $49^\circ$

16.

(a) Angles in a triangle add up to  $180^\circ \rightarrow 180 - (80 + 43) = 57^\circ$

(b)  $80^\circ \rightarrow$  Alternate angles

17.

Firstly she pays,  $15\%$  of  $\pounds 8000 \rightarrow \pounds 1200$

Remaining cost =  $\pounds 6800$  (payable in 20 equal amounts)

1 payment will be  $6800 \div 20 = \pounds 340$

18.

(a) 4 right, 2 down  $\rightarrow \begin{pmatrix} 4 \\ -2 \end{pmatrix}$

(b) New vertices of the triangle will be,  $(1, -2), (3, -2)$  and  $(3, -3)$

END OF PAPER 1 SOLUTIONS