C2

1 $2x^2 + \frac{3}{4}x^{4/3} + C$.

2a 8, 13, 18

b 5

c 1110.

3 $7\frac{1}{3}$.

4a V = 0, 11.27, 21.06, 29.37, 36.24

b. 400m.

5ai $x_2 = a - 3$ ii $x_3 = \frac{9 - 2a}{a - 3}$.

b $3 < a < 3\frac{3}{4}$.

6 $n = 7$ $b = 4$

7a Diff between 3rd + 6th term = 3 terms

So $18 \times d^3 = 486$

$d^3 = 27$

$d = 3$.

b 2

c 14348906.

8a Use Cosine Rule

$a^2 = b^2 + c^2 - 2bc\cos A$

$40^2 = 30^2 + 30^2 - 2 \times 30 \times 30 \times \cos B$

$1600 = 900 + 900 - 1800\cos B$

$\frac{-200}{-1800} = \cos B$ $B = \cos^{-1}(\frac{1}{9})$

$B = [redacted]$ 0146 R

8b $657m^2$

8c $210m^2$

9a x.

9b $a=2 \quad b=3$

9c $x=0.525 \quad y=4.40$.

10a $\theta = 10.9°, \quad 100.9°, \quad 190.9°, \quad 280.9°$

b $\theta = 211.6°, \quad 328.4°$.

9a $2\log_3 y = C - \log_3 x \qquad y=2$ when $x=4$

$2\log_3 2 = C - \log_3 4$

$C = \log_3 2^2 + \log_3 4$

$C = \log_3 16$.

$2\log_3 y = \log_3 16 - \log_3 x$.

$\log_3 y^2 = \log_3 \frac{16}{x}$.

$y^2 = \frac{16}{x}$

$y = \sqrt{\frac{16}{x}}$

$y = \frac{4}{\sqrt{x}} \Rightarrow 4x^{-1/2}$.

$y = 4x^{-1/2}$