



April Higher Maths Calendar

#abitofmathseveryday



1

$$(-12, -1)$$

2 $4x^2 - 12x + 10$	3 $\frac{5\pi}{4}$	4 No since $m_{KL} \neq m_{LM}$	5 $(x - 2)(x + 7)(x - 5)$	6 $y = -2x - 4$	7 $\frac{\pi}{3}, \frac{4\pi}{3}$
8 Min TP @ (0, 0) Max TP @ (2, 8)	9 $y = 2x^3 - x^2 + 6$	10 43.0°	11 $\frac{1}{12}(4x + 9)^3 + c$	12 $U_{n+1} = \frac{1}{2}U_n + 9$	13 $a = 7,$ $b = 3,$ $c = 5$
14 $C(3, 0)$ $r = 7$	15 $y = \frac{2}{9}x(x - 6)$	16 $k^{-1}(x) = 4x - 1$	17 $\frac{3 + \sqrt{21}}{8}$	18 $-\frac{3}{8}$	19 $\begin{aligned} & \frac{2\sin x \cos x}{\sin x} \\ &= \frac{\cos x}{\sin x} \\ &= \frac{2\sin x \cos^2 x}{\sin x} \\ &= 2\cos^2 x \end{aligned}$
20 $41.4^\circ,$ $180^\circ,$ 318.6°	21 $a = \frac{1}{4}$	22 Since $10 = 10$	23 $-2 < x < 6$	24 $y = 4(x - 1)^2 + 5$	25 $\frac{81}{4} \text{ units}^2$
26 $(-1, 1),$ $(2, 4),$ $(4, 6)$	27 $2\cos(x + 300)^\circ$	28 $(7, -7)$	29 $c \leq 2,$ $c \geq 10$	30 $x = -6, x = 2$	