

2010 -	
:	/ / 3:

5	1	$. U_2 = 36 \quad U_1 = 12 \quad U_0 = 4 :$	(1)
	1	$. 3 \quad (U_n) \quad U_{n+1} = U_n \times 3 :$	(2)
	1	$. U_9 = 4 \times 3^9 = 78732 :$	(3)
	1	$n = 6 : \quad 3^n = 729 \quad 4 \times 3^n = 2916$	(4)
	1	$. U_6 = 2916$ $. S = 108(3^9 - 1) = 1062828 \quad S = 2(3^n - 1) :$	(5)
5	2		(1)
	1,5	$P_1 = \frac{16}{81} :$	(2)
	1,5	$P_2 = \frac{52}{81} :$	(3)

10

1

.  $a = -3$  :  $f(x) = \frac{-x+3+a}{x-3}$  : (1)

2

$\lim_{x \rightarrow -\infty} f(x) = -1$        $\lim_{x \rightarrow +\infty} f(x) = -1$  : (2)

1

$\lim_{x \rightarrow 3^+} f(x) = -\infty$        $\lim_{x \rightarrow 3^-} f(x) = +\infty$

1,5

.  $y = -1$        $x = 3$  :

$f'(x) = \frac{3}{(x-3)^2}$  : (3)

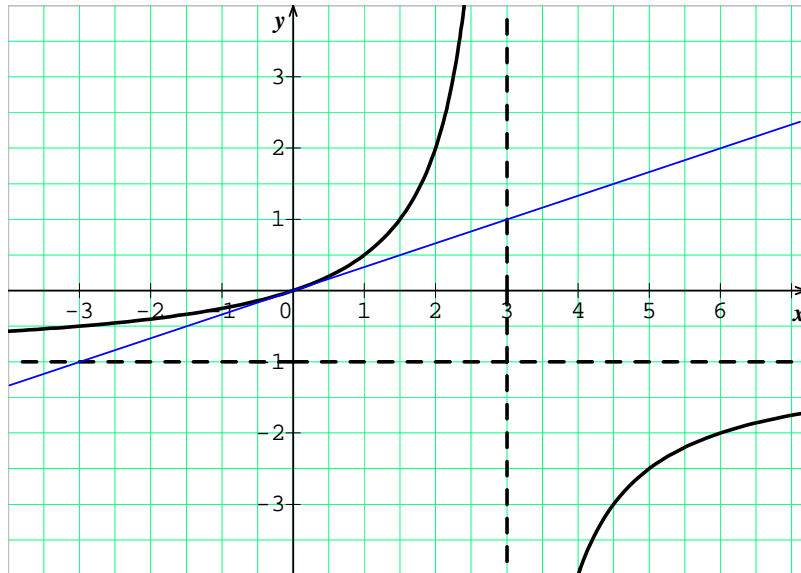
1,5

$y = \frac{1}{3}x$  : (4)

1

(5

(6



2