

**12th September**

Corbettmaths

$$\frac{y-6}{y^2-2} = w$$

Work out the values of  $y$  when  $w = 3$ 

$$f(x) = 400 - x^2 \text{ for all values of } x.$$

Solve  $f(2x) = 150$

$$\mathbf{A} = \begin{pmatrix} 5 & -4 \\ 0 & 1 \end{pmatrix} \quad \mathbf{B} = \begin{pmatrix} p & q \\ 0 & 1 \end{pmatrix}$$

Given  $\mathbf{AB} = \mathbf{I}$ Find  $p$  and  $q$ For all positive integers,  $n$ , prove that  $n^3 - n$  is always divisible by 6.