

Cut out the pieces and rearrange into a coherent proof.

<p>If I have three consecutive numbers, one of them must be a multiple of 3.</p>	<p>$(p-1)(p+1)$ is a multiple of both 8 and 3, so $(p-1)(p+1)$ is a multiple of 24.</p>
	<p>p is an odd number, so $p-1$ and $p+1$ must both be multiples of 2.</p>
<p>$(p-1)(p+1)$ is the product of a multiple of 2 and a multiple of 4, so must be a multiple of 8.</p>	<p>$(p-1)$ and $(p+1)$ are consecutive even numbers so either $(p-1)$ or $(p+1)$ must be a multiple of 4.</p>
<p>$(p-1)$, p, and $(p+1)$ are consecutive numbers.</p>	<p>Let p be a prime number greater than 3.</p>
<p>p is prime and greater than 3 so cannot be a multiple of 3.</p>	<p>Either $(p-1)$ or $(p+1)$ must be a multiple of 3, so the product $(p-1)(p+1)$ must also be a multiple of 3.</p>
<p>The expression p^2-1 can be factorised as $(p-1)(p+1)$</p>	<p>Therefore for any prime number p greater than 3, p^2-1 is a multiple of 24.</p>