If $x^2-3x-4=0$

then $x^2-3x=4$

$x(x-3)=4$

$x=2$ ~~or~~ and $x-3=2$

$x=2$ ~~or~~ and $x=5$

$x^2-3x-4=0$?

$(x-4)(x+1)=0$

If $AB=0$, then $A=0$ or $B=0$

* How do you prove this?

$x-4=0$ or $x+1=0$?

$x=4$ or $x=-1$

Substituting in, we get

$4^2-3\cdot 4-4=0$ ✓

$(-1)^2-3\cdot(-1)-4=0$ ✓

If x is a number such that $x^2-3x-4=0$

then $x^2+x-4x-4=0$,

so $x(x+1)-4(x+1)=0$,

so $(x+1)(x-4)=0$.

-4

$-1,4$; $1,-4$

$-2,2$

For all x, $(x-4)(x+1)=x^2+x-4x-4=x^2-3x-4$.

Assume x is such that $x^2-3x-4=0$.

Since $x^2-3x-4=(x-4)(x+1)$ and

then $(x-4)(x+1)=0$

$x^2-3x-4=0$

Since 2nd degree, at most 2 zeros

A + B.

So try to write $(x^2-3x-4)=(x+C)(x+D)$.

yada ...

$(x+4)(x-1)=0$