

So we saw that a conservative force is path independent.

And we also had examples of forces which are path dependent, if you have a path 2 and path 1.

And the work done is path dependent.

So that means for each path we will get a different answer.

Then we call this force  $F$ , be denoted by  $n_c$ , is called nonconservative.

And again, we see that friction is the best example of a nonconservative force.

And if we go again for a nonconservative work, if we integrate from the initial point to the final point, for instance, on our path 1 of this nonconservative force, so if we integrate this way and if we reverse the interval, and so we go back from the final point to the initial point on path 2, that these integrals will not be equal to the negative view of each other because the quantities are different for the different paths, in general, and so this is nonzero.

And in fact, that's the property of nonconservative forces, that the work done around a closed path for a nonconservative force is not equal to zero, in general.

There may be one specific closed path in which that answer is zero.

But in general, it's nonzero.