Newton's first law of motion (contains mistakes)
Every body continues in its state of rest , or of uniform motion in a straight line , unless it is compelled to change that state by forces impressed upon it . - Newton's First Law of Motion , translated from the Principia's Latin
This is sometimes called the Law of Inertia , or just inertia . Essentially , it makes the following two points:

- An object that is not moving will not move until a force acts upon it .
- An object that is in motion will not change velocity (including stopping) until a force acts upon it . The first point seems relatively obvious to most people , but the second may take some thinking through , because everyone knows that things don't keep moving forever . If I slide a hockey puck along a table , it doesn't move forever , it slows and eventually comes to a stop . But according to Newton's laws , this is because a force is acting on the hockey puck and , sure enough , there is frictional force between the table and the puck , and that frictional force is in the direction opposite the movement . It's this force which causes the object to slow to a stop . In the absence (or virtual absence) of such a force , as on an air hockey table or ice rink , the puck's motion isn't hindered .

Here is another way of stating Newton's First Law: A body that is acted on by no net force moves at a constant velocity (which may be zero) and zero acceleration . So with no net force , the object just keeps doing what it is doing . It is important to note the words net force . This means the total forces upon the object must add up to zero . An object sitting on my floor has a gravitational force pulling it downward , but there is also a normal force pushing upward from the floor , so the net force is zero - therefore it doesn't move . To return to the hockey puck example , consider two people hitting the hockey puck on exactly opposite sides at exactly the same time and with exactly identical force . In this rare case , the puck would not move . Since both velocity and force are vector quantities , the directions are important to this process . If a force (such as gravity) acts downward on an object , and there's no upward force , the object will gain a vertical acceleration downward . The horizontal velocity will not change , however . If I throw a ball off my balcony at a horizontal speed of 3m/s , it will hit the ground with a horizontal speed of 3 m/s (ignoring the force of air resistance) , even though gravity exerted a force (and therefore acceleration) in the vertical direction . If it weren't for gravity , though , the ball would have kept going in a straight line . . . . . . at least until it hit my neighbor's house .

Newton's second law of motion The acceleration produced by a particular force acting on a body is directly proportional to the magnitude of the force and inversely proportional to the mass of the body . - Newton's Second Law of Motion , translated from the Principia's Latin The mathematical formulation of the second law is shown to the right , with F representing the force , m representing the object's mass and a representing the object's acceleration . This formula is extremely useful in classical mechanics , as it provides a means of translating directly between the acceleration of and force acting upon a given mass . A large portion of classical mechanics ultimately breaks down to applying this formula in different contexts . The sigma symbol to the left of the force indicates that it is the net force , or the sum of all the forces , that we are interested in . As vector quantities , the direction of the net force will also be the same direction as the acceleration . You can also break the equation down into x & y (and even z) coordinates , which can make many elaborate problems more manageable , especially if you orient your coordinate system properly .

You'll note that when the net forces on an object sum up to zero , we achieve the state defined in Newton's First Law - the net acceleration must be zero . We know this because all object have mass (in classical mechanics , at least) . If the object is already moving it will continue to move at a constant velocity , but that velocity will not change until a net force is introduced . Obviously , an object at rest will not move at all without a net force . The Second Law in Action A box with a mass of 40 kg sits at rest on a frictionless tile floor . With your foot , you apply a 20 N force in a horizontal direction . What is the acceleration of the box? The object is at rest , so there is no net force except for the force your foot is applying . Friction is eliminated . Also , there's only one direction of force to worry about . So this problem is very straightforward . You begin the problem by defining your coordinate system . In this case , that's easy - the +x direction will be the direction of the force (and , therefore , the direction of the acceleration) . The mathematics is similarly straightforward: F = m * a F / m = a 20 N / 40 kg = a = 0 . 5 m / s2 The problems based on this law are literally endless , using the formula to determine any of the three values when you are given the other two . As systems become more complex , you will learn to apply frictional forces , gravity , electromagnetic forces , and other applicable forces to the same basic formula .

Not only that , but while it's pushing on the tip of your finger , your finger in turn pushes back into your body , and the rest of your body pushes back against the finger , and your body in turn pushes on the chair or floor (or both) , all of which keeps your body from moving and allows you to keep your finger moving to continue the force . There's nothing pushing back on the shoebox to stop it from moving . If , however , the shoebox is sitting next to a wall and you push it toward the wall , the shoebox will push on the wall - and the wall will push back . The shoebox will , at this point , stop moving . You can try to push it harder , but the box will break before it goes through the wall because it isn't strong enough to handle that much force . Tug of War: Newton's Laws in Action Most people have played tug of war at some point . A person or group of people grab the ends of a rope and try to pull the person or group at the other end , usually past some marker (sometimes into a mud pit in really fun versions) , thus proving that one of the groups is stronger . All three of Newton's Laws can be seen very obviously in tug of war . There frequently comes a point in tug of war - sometimes right at the beginning but sometimes later - where neither side is moving . Both sides are pulling with the same force and therefore the rope does not accelerate in either direction . This is a classic example of Newton's First Law .

Newton's third law of motion To every action there is always opposed an equal reaction; or , the mutual actions of two bodies upon each other are always equal , and directed to contrary parts . - Newton's Third Law of Motion , translated from the Principia's Latin We represent the Third Law by looking at two bodies A and B that are interacting . We define FA as the force applied to body A by body B and FA as the force applied to body B by body A . These forces will be equal in magnitude and opposite in direction . In mathematical terms , it is expressed as: FB = - FA or FA + FB = 0

This is not the same thing as having a net force of zero , however . If you apply a force to an empty shoebox sitting on a table , the shoebox applies an equal force back on you . This doesn't sound right at first - you're obviously pushing on the box , and it is obviously not pushing on you . But remember that , according to the Second Law , force and acceleration are related - but they aren't identical!

Because your mass is much larger than the mass of the shoebox , the force you exert causes it to accelerate away from you and the force it exerts on you wouldn't cause much acceleration at all . Once a net force is applied , such as when one group begins pulling a bit harder than the other , an acceleration begins , and this follows the Second Law . The group losing ground must then try to exert more force . When the net force begins going in their direction , the acceleration is in their direction . The movement of the rope slows down until it stops and , if they maintain a higher net force , it begins moving back in their direction . The Third Law is a lot less visible , but it's still there . When you pull on that rope , you can feel that the rope is also pulling on you , trying to move you toward the other end . You plant your feet firmly in the ground , and the ground actually pushes back on you , helping you to resist the pull of the rope . Next time you play or watch a game of tug of war - or any sport , for that matter - think about all the forces and accelerations at work . It's truly impressive to realize that you could , if you worked at it , understand the physical laws that are operating in your favorite sport .

nyutinz fɯst lɑr ov mōshin.

“evrᴇ bodᴇ kᴧ̇ntinyuz in i□s stɑᴇt ov rest , ɑr ov yunᴧ̇fɑrm mōshin in ɑᴇ sjrɑᴇt lIn , ᴧ̇nles it iz kᴧ̇mpald tu chɑᴇnj that stɑᴇt bI fɑrsiz imprest ᴧ̇pon it” . nyutinz fɯst lɑr ov mōshin , chranzlɑᴇtid from thʌ prinsᴧ̇pᴇiz latin.
this iz sʌmtImz kɑrld thʌ lɑr ov inɯshʌ , ɑr jʌst inɯshʌ .
ᴧ̇senchɵl , it mɑᴇx thʌ foliwᴇg tu pɑrᴇn□s:

an objekt ŧiat iz not muvᴇŋ wiL not muv ᴀ̇ntiL ɑᴇ fɑrs ak□s ᴀ̇pon it.
an objekt ŧiat iz in mōshin wiL not chɑᴇnj vᴀ̇losᴀ̇tᴇ (inkludᴇŋ stopᴇŋ) ᴀ̇ntiL ɑᴇ fɑrs ak□s ᴀ̇pon it. ŧiʌ furst pɑrent sᴇmz relᴀ̇tivLᴇ obvᴇis tu mōst pᴇpɸL , bʌt ŧiʌ sekind mɑᴇ tɑᴇk sʌm Tlingkᴇŋ Tlru , bᴇkooz evrᴇwʌn nōz ŧiat Tliŋz dōnt kᴇp muvᴇŋ fɑrevʌ . if I sLId ɑᴇ hokᴇ pʌk ᴀ̇Loŋ ɑᴇ tɑᴇbɸL , it dʌzint muv fɑrevʌ , it sLōz and ivenchʌLᴇ kʌmz tu ɑᴇ stop. bʌt ᴀ̇kɑrdᴇŋ tu nyutinz Lɑrz , ŧiis iz bᴇkooz ɑᴇ fɑrs iz aktᴇŋ on ŧiʌ hokᴇ pʌk and, shɑr ᴀ̇nʌf, ŧieʌ iz frikshᴀ̇nɸL fɑrs bitwᴇn ŧiʌ tɑᴇbɸL and ŧiʌ pʌk, and ŧiat frikshᴀ̇nɸL fɑrs iz in ŧiʌ dʌrekshin opʌsit ŧiʌ muvmint . i□s ŧiis fɑrs wich kɑrziz ŧiʌ objekt tu sLō tu ɑᴇ stop. in ŧiʌ absins (ɑr vurchɸL absins) ov sʌch ɑᴇ fɑrs , az on an eʌ hokᴇ tɑᴇbɸL ɑr Is riŋk , ŧiʌ pʌks mōshin izint hindid.

heʌ iz ʌnʌŧiʌ wɑᴇ ov stɑᴇtᴇŋ nyutinz furst Lɑr: ɑᴇ bodᴇ ŧiat iz aktid on bI nō net fɑrs muvz at ɑᴇ konstint vᴀ̇losᴀ̇tᴇ (wich mɑᴇ bᴇ zerō) and zerō axaLᴀ̇rɑᴇshin . sō wiTl nō net fɑrs , ŧiʌ objekt jʌst kᴇps duwᴇŋ wot it iz duwᴇŋ . it iz impɑrtint tu nōt ŧiʌ wur□s net fɑrs . ŧiis mᴇnz ŧiʌ tōtɸL fɑrsiz ᴀ̇pon ŧiʌ objekt mʌst ad ʌp tu zerō . an objekt sitᴇŋ on mI fLɑr haz ɑᴇ gravᴀ̇tɑᴇshᴀ̇nɸL fɑrs pooLᴇŋ it daonwid , bʌt ŧieʌ iz ɑrLsō ɑᴇ nɑrmɸL fɑrs pooshᴇŋ ʌpwɑrd from ŧiʌ fLɑr , sō ŧiʌ net fɑrs iz zerō ŧieʌfɑr it dʌzint muv . tu rᴀ̇turn tu ŧiʌ hokᴇ pʌk exAmpɸL , kᴀ̇nsidʌ tu pᴇpɸL hitᴇŋ ŧiʌ hokᴇ pʌk on exaktLᴇ opʌsit sI□s at exaktLᴇ ŧiʌ sɑᴇm tIm and wiTl exaktLᴇ Identᴀ̇kɸL fɑrs . in ŧiis reʌ kɑᴇs , ŧiʌ pʌk wood not muv . sins bōTl vᴀ̇losᴀ̇tᴇ and fɑrs A vektʌ qontᴀ̇tᴇz , ŧiʌ dʌrekshinz A impɑrtint tu ŧiis prōses . if ɑᴇ fɑrs (sʌch az gravᴀ̇tᴇ) ak□s daonwid on an objekt , and ŧieiz nō ʌpwɑrd fɑrs , ŧiʌ objekt wiL gɑᴇn ɑᴇ vurtᴀ̇kɸL axaLᴀ̇rɑᴇshin daonwid . ŧiʌ horᴀ̇zontɸL vᴀ̇losᴀ̇tᴇ wiL not chɑᴇnj , haoevʌ . if I Tlrō ɑᴇ bɑrL of mI balkᴀ̇nᴇ at ɑᴇ horᴀ̇zontɸL spᴇd ov Tlrᴇ mᴇtiz pur sekind, it wiL hit ŧiʌ graond wiTl ɑᴇ horᴀ̇zontɸL spᴇd ov Tlrᴇ mᴇtiz pur sekind (ignɑrᴇŋ ŧiʌ fɑrs ov eʌ rᴀ̇zisdins) , ᴇvin ŧiō gravity exurtid ɑᴇ fɑrs (and ŧieʌfɑr axaLᴀ̇rɑᴇshin) in ŧiʌ vurtᴀ̇kɸL dʌrekshin . if it wɯrnt fɑr gravʌ̇tᴇ , ŧō , ŧʌ bɑrʟ wɷd hɑv kept gōwᴇɡ in ɑᴇ sjrɑᴇt ʟIn . . . . . . ɑt ʟᴇst ʌ̇ntiʟ it hit mI nɑᴇbiz hɑos .

nyutinz sekind ʟɑr ov mōshin
"ŧʌ ɑxɑʟʌ̇rɑᴇshin prʌ̇just bI ɑᴇ pAtikyuʟʌ fɑrs ɑktᴇɡ on ɑᴇ bodᴇ iz direktʟᴇ prʌ̇pɑrshʌ̇nɸʟ tu ŧʌ magnʌ̇chud ov ŧʌ fɑrs ɑnd invɯrsʟᴇ prʌ̇pɑrshʌ̇nɸʟ tu ŧʌ mɑs ov ŧʌ bodᴇ ." nyutinz sekind ʟɑr ov mōshin , chrɑnzʟɑᴇtid from ŧʌ prinsʌ̇piz ʟatin

ŧʌ mɑTlmɑtʌ̇kɸʟ fɑrmyuʟɑᴇshin ov ŧʌ sekind ʟɑr iz shōwn tu ŧʌ rIt , wiTl ef reprʌ̇zentᴇɡ ŧʌ fɑrs , em reprʌ̇zentᴇɡ ŧʌ objek□s mɑs ɑnd ɑᴇ reprʌ̇zentᴇɡ ŧʌ objek□s ɑxɑʟʌ̇rɑᴇshin . ŧis fɑrmyuʟʌ iz exchrᴇmʟᴇ yusfɷʟ in kʟɑsʌ̇kɸʟ mʌ̇kɑnix , ɑz it prʌ̇vI□s ɑᴇ mᴇnz ov chrɑnzʟɑᴇtᴇɡ direktʟᴇ bitwᴇn ŧʌ ɑxɑʟʌ̇rɑᴇshin ov ɑnd fɑrs ɑktᴇɡ ʌ̇pon ɑᴇ givin mɑs . ɑᴇ ʟAj pɑrshin ov kʟɑsʌ̇kɸʟ mʌ̇kɑnix oʟtʌmitʟᴇ brɑᴇx dɑon tu ʌ̇pʟIᴇɡ ŧis fɑrmyuʟʌ in difrint kontex□s . ŧʌ sigmʌ simbɸʟ tu ŧʌ ʟeft ov ŧʌ fɑrs indʌ̇kɑᴇ□s ŧɑt it iz ŧʌ net fɑrs , ɑr ŧʌ sʌm ov ɑrʟ ŧʌ fɑrsiz , ŧɑt wᴇ A inchristid in . ɑz vektʌ qontʌ̇tᴇz , ŧʌ dʌrekshin ov ŧʌ net fɑrs wiʟ ɑrʟsō bᴇ ŧʌ sɑᴇm dʌrekshin ɑz ŧʌ ɑxɑʟʌ̇rɑᴇshin . yu kɑn ɑrʟsō brɑᴇk ŧʌ ᴇqɑᴇʃin dɑon intu ex & wI (ɑnd ᴇvin zed) kōɑrdʌ̇nin□s , wich kɑn mɑᴇk menᴇ ʌ̇ʟɑbʌ̇rit probʟimz mɑr manijʌ̇bɸʟ , esbeshʌʟᴇ if yu orᴇint yɑr kōɑrdʌ̇nit sistim propiʟᴇ .

yɷʟ nōt ŧɑt wen ŧʌ net fɑrsiz on ɑn objekt sʌm ʌp tu zerō , wᴇ ʌ̇chᴇv ŧʌ stɑᴇt dʌ̇fInd in nyutinz fɯrst ʟɑr ŧʌ net ɑxɑʟʌ̇rɑᴇshin mʌst bᴇ zerō . wᴇ nō ŧis bᴇkɷz ɑrʟ objekt hɑv mɑs (in kʟɑsʌ̇kɸʟ mʌ̇kɑnix , ɑt ʟᴇst) . if ŧʌ objekt iz ɑrredᴇ muvᴇɡ it wiʟ kontinyu tu muv ɑt ɑᴇ konstint vʌ̇ʟosʌ̇tᴇ , bʌt ŧɑt vʌ̇ʟosʌ̇tᴇ wiʟ not chɑᴇnj ʌ̇ntiʟ ɑᴇ net fɑrs iz inchrʌ̇just . obvᴇisʟᴇ , ɑn objekt ɑt rest wiʟ not muv ɑt ɑrʟ wiTlɑot ɑᴇ net fɑrs . ŧʌ sekind ʟɑr in ɑkshin ɑᴇ box wiTl ɑᴇ mɑs ov 40 kiʟʌ̇grɑm si□s ɑt rest on ɑᴇ frikshinʟis tʌᴇiʟ fʟɑr . wiTl yɑr fɷt , yu ᴧplI ɑᴇ 20 nyutin fɔrs in ɑᴇ horᴧzontɵl dʌrekshin . wot iz thʌ axalᴧrɑᴇshin ov thʌ box? thʌ objekt iz at rest , sō theʌ iz nō net fɔrs exept fɔr thʌ fɔrs yɔr foot iz ᴧplIᴇŋ . frikshin iz ᴧlimᴧnɑᴇtid . ɔrlsō , theiz ōnlᴇ wʌn dʌrekshin ov fɔrs tu wʌrᴇ ᴧbaot . sō this problim iz verᴇ sjrɑᴇtfɔrd . yu bᴧgin thʌ problim bI dᴧfInᴇŋ yɔr kōɔrdᴧnit sistim . in this kɑᴇs , thaos ᴇzᴇ thʌ +ex dʌrekshin wil bᴇ thʌ dʌrekshin ov thʌ fɔrs (and , theʌfɔr , thʌ dʌrekshin ov thʌ axalᴧrɑᴇshin) . thʌ maThmatix iz simᴧlAlᴇ sjrɑᴇtfɔrd: F = m * a F / m = a 20 N / 40 kg = a = 0 . 5 m / s2 thʌ problimz bɑᴇst on this lɔr A lichrʌlᴇ endlis , yuzᴇŋ thʌ fɔrmyulʌ tu dᴧturmin enᴇ ov thʌ Thrᴇ valyuz wen yu A givin thʌ ʌthʌ tu . az sistimz bᴧkʌm mɔr komplex , yu wil lurn tu ᴧplI frikshᴧnɵl fɔrsiz , gravᴧtᴇ , ᴧlekchrōmagnetik fɔrsiz , and ʌthʌ ᴧplikᴧbɵl fɔrsiz tu thʌ sɑᴇm bɑᴇsik fɔrmyulʌ .

nyutinz Thurd lɔr ov mōshin
“tu evrᴇ akshin theʌ iz ɔrwɑᴇz ᴧpōzd an ᴇqool rᴇakshin; ɔr , thʌ myuchɵl akshinz ov tu bodᴇz ᴧpon ᴇch ʌthʌ A ɔrwɑᴇz ᴇqool , and dᴧrektid tu konchrᴇ pAs ”. nyutinz Thurd lɔr ov mōshin , chranzlɑᴇtid from thʌ prinsᴧpiz latin

wᴇ reprᴧzent thʌ Thurd lɔr bI lookᴇŋ at tu bodᴇz ɑᴇ and yu that A intᴧaktᴇŋ . wᴇ dᴧfIn ef az thʌ fɔrs ᴧplId tu bodᴇ ɑᴇ bI bodᴇ yu and ef az thʌ fɔrs ᴧplId tu bodᴇ yu bI bodᴇ ɑᴇ . thᴇz fɔrsiz wil bᴇ ᴇqool in magnᴧchud and opʌsit in dʌrekshin . in maThmatᴧkɵl turmz , it iz expressed az: FB = - FA or FA + FB = 0 this iz not thʌ sɑᴇm Thiŋ az havᴇŋ ɑᴇ net fɔrs ov zerō , haoevʌ . if yu ᴧplI ɑᴇ fɔrs tu an empdᴇ shubox sitᴇŋ on ɑᴇ tɑᴇbɵl , thʌ shubox ᴧplIz an ᴇqool fɔrs bak on yu . this dʌzint saond rIt at furst yɔr obvᴇislᴇ pooshᴇŋ on thʌ box , and it iz obvᴇislᴇ not pooshᴇŋ on yu . bʌt rᴧmembʌ that , ᴧkɔrdᴇŋ tu thʌ sekind lɔr , fɔrs and axalᴧrɑᴇshin A rᴧlɑᴇtid bʌt thɑᴇ Ant Identᴧkɵl! bᴇkooz yɔr mas iz mʌch lAjʌ than thʌ mas ov thʌ shubox , thʌ fɔrs yu exurt kɔrziz it tu axalᴧrɑᴇt ʌwɑᴇ from yu and thʌ fɔrs it exurs on yu woodint kɔrz mʌch axalᴧrɑᴇshin at ɔrl .

not ōnlᴇ ŧɑt , bʌt wIiL in□s pꝏshᴇŋ on ŧʌ tip ov yɑr fiŋgʌ , yɑr fiŋgʌ in turn pꝏshiz bɑk intu yɑr bodᴇ , ɑnd ŧʌ rest ov yɑr bodᴇ pꝏshs bɑk ᴧgenst ŧʌ fiŋgʌ , ɑnd yɑr bodᴇ in turn pꝏshs on ŧʌ cheʌ ɑr flɑr (ɑr bōŦ) , ɑrL ov wich kᴇps yɑr bodᴇ from muvᴇŋ ɑnd ᴧLɑoz yu tu kᴇp yɑr fiŋgʌ muvᴇŋ tu kontinyu ŧʌ fɑrs . ŧeiz nʌŦᴇŋ pꝏshᴇŋ bɑk on ŧʌ shubox tu stop it from muvᴇŋ . if , hɑoevʌ , ŧʌ shubox iz sitᴇŋ next tu ɑᴇ wɑrL ɑnd yu pꝏsh it tᴧwɑrd ŧʌ wɑrL , ŧʌ shubox wiL pꝏsh on ŧʌ wɑrL ɑnd ŧʌ wɑrL wiL pꝏsh bɑk . ŧʌ shubox wiL , ɑt ŧis pɑɪᴇnt , stop muvᴇŋ . yu kɑn chrI tu pꝏsh it hAdʌ , bʌt ŧʌ box wiL brɑᴇk bᴧfɑr it gōz Ŧru ŧʌ wɑrL bᴇkꝏz it isn't sjroŋ ᴧnʌf tu hɑndɵL ŧɑt mʌch fɑrs . tʌg ov wɑr: nyutinz Lɑrz in ɑkshin mōst pᴇpɵL hɑv pLɑᴇd tʌg ov wɑr ɑt sʌm pɑɪᴇnt . ɑᴇ pursin ɑr grup ov pᴇpɵL grɑb ŧʌ en□s ov ɑᴇ rōp ɑnd chrI tu pꝏL ŧʌ pursin ɑr grup ɑt ŧʌ ʌŧʌ end , yuʒhʌLᴇ pAst sʌm mAkʌ (sʌmtImz intu ɑᴇ mud pit in reiLᴇ fʌn vurʒhinz) , Ŧʌs pruvᴇŋ ŧɑt wʌn ov ŧʌ grups iz sjroŋgʌ . ɑrL Ŧrᴇ ov nyutinz Lɑrz kɑn bᴇ sᴇn verᴇ obvᴇisLᴇ in tʌg ov wɑr . ŧeʌ frᴇqᴧntLᴇ kʌmz ɑᴇ pɑɪᴇnt in tʌg ov wɑr sʌmtImz rIt ɑt ŧʌ bᴧginᴇŋ bʌt sʌmtImz Lɑᴇtʌ weʌ nIŧʌ sId iz muvᴇŋ . bōŦ sI□s A pꝏLᴇŋ wiŦ ŧʌ sɑᴇm fɑrs ɑnd ŧeʌfɑr ŧʌ rōp dʌz not ɑxɑLᴧrɑᴇt in Iŧʌ dʌrekshin . ŧis iz ɑᴇ kLɑsik exAmpɵL ov nyutinz furst Lɑr .

wʌns ɑᴇ net fɑrs iz ᴧpLId , sʌch ɑz wen wʌn grup bᴧginz pꝏLᴇŋ ɑᴇ bit hAdʌ ŧɑn ŧʌ ʌŧʌ , ɑn ɑxɑLᴧrɑᴇshin bᴧginz , ɑnd ŧis foLōz ŧʌ sekind Lɑr . ŧʌ grup Luzᴇŋ grɑond mʌst ŧen chrI tu exurt mɑr fɑrs . wen ŧʌ net fɑrs bᴧginz gōwᴇŋ in ŧeʌ dʌrekshin , ŧʌ ɑxɑLᴧrɑᴇshin iz in ŧeʌ dʌrekshin . ŧʌ muvmint ov ŧʌ rōp sLōz dɑon ᴧntiL it stops ɑnd , if ŧɑᴇ mɑᴇntɑᴇn ɑᴇ hIʌ net fɑrs , it bᴧginz muvᴇŋ bɑk in ŧeʌ dʌrekshin . ŧʌ Ŧurd Lɑr iz ɑᴇ Lot Les vizᴧbɵL , bʌt in□s stiL ŧeʌ . wen yu pꝏL on ŧɑt rōp , yu kɑn feiL ŧɑt ŧʌ rōp iz ɑrLsō pꝏLᴇŋ on yu , chrIᴇŋ tu muv yu tᴧwɑrd ŧʌ ʌŧʌ end . yu pLAnt yɑr fᴇt furmLᴇ in ŧʌ grɑond , ɑnd ŧʌ grɑond ɑkshʌLᴇ pꝏshs bɑk on yu , hɑLpᴇŋ yu tu rᴇzist ŧʌ pꝏL ov ŧʌ rōp . next tIm yu pLɑᴇ ɑr wɑch ɑᴇ gaEm ov tʌg ov wor or enE sport , for tiat matʌ Tliŋk ʌbaot orl tiʌ forsiz and axalʌraEshinz at wurk . i□s chrulE impresiv tu reilIz tiat yu kood , if yu wurkt at it , ʌndʌstand tiʌ fizʌkoL Lorz tiat A opʌraEtEŋ in yor favrit sport.