

Qib 8

MINNESOTA COV LUS QHIA TXOG COV QAUV UAS MUAJ RAU TSEV NEEG

Dab Tsi Yog Cov Uas Koj Tus Me Nyuam

Kawm Qib 8 Yuav Tsum Tau Paub

Cov Dej Num & Cov Ua Piv Txvw Ntawm Kev

Kawm Lus As Kiv (ELA) & Kev Kawm Ua Lej

Tswv Yim Mus Nrog Cov Xib Hwb Qhia Ntaww Sib Tham



Hais txog cov lus qhia ntawm no

Cov yim neeg yeej xav paub hais tias saib lawv tus me nyuam kawm dab tsi hauv tsev kawm ntawv. Lawv xav tawm suab los pab lawv tus me nyuam & los pab kom lawv tus me nyuam kawm tau ntaub ntawv.

Minnesota Department of Education (Minnesota Lub Chaw Tuav Dej Num Saib Xyuas Kev Qhia Ntawv) yog lub chaw txiav txim hais tias saib txhua tus me nyuam yuav kawm dab tsi hauv tsev kawm ntawv nyob rau txhua yam kev kawm. Cov lus qhia ntawm no yeej pab ua kom koj nkag siab txog cov qauv nyob hauv Kev Kawm Lus As Kiv (English Language Arts (ELA) & Kev Kawm Ua Lej. Qhov ntawm no yuav pab koj mus nrog koj tus me nyuam cov xib hwb qhia ntawv koom tes los mus txhawb txoj kev kawm thaum kawm qib 8.

**Ua ntej koj yuav muab cov lus qhia ntawm no coj los xyuas,
peb thov kom koj mus saib hauv [www.bealearninghero.org/
es/readiness-check-mn](http://www.bealearninghero.org/es/readiness-check-mn) kom koj paub meej hais tias saib koj
tus me nyuam kawm qib ntawv dab tsi tam sim no.**





Cov lus qhia ntawm no yeej muaj



PHAB NTAWV 4 RAU ELA & **PHAB NTAWV 16** RAU KEV KAWM UA LEJ

Dab tsí yog cov uas koj tus me nyuam yuav tsum tau paub & yuav tsum ua tau—Cov ntaub ntawv tseem ceeb tshaj (kev paub & txuj ci) uas cov tub ntxhais kawm ntawv yuav tsum tau paub thaum lawv kawm tag qib 8



PHAB NTAWV 7 RAU ELA & **PHAB NTAWV 18** RAU KEV KAWM UA LEJ

Qhov ntawv ua piv txwv uas koj tus me nyuam yuav tsum sau tau thaum kawm tag qib 8



PHAB NTAWV 14 RAU ELA & **PHAB NTAWV 20** RAU KEV KAWM UA LEJ

Cov dej num niaj hnub los mus txhawb txoj kev kawm—Cov hauv kev uas koj yuav pab tau koj tus me nyuam nyob hauv txoj kev kawm cov ntaub ntawv tseem ceeb & cov txuj ci hauv Kev Kawm Lus As Kiv (English Language Arts (ELA)) & Kev Kawm Ua Lej



PHAB NTAWV 15 RAU ELA & **PHAB NTAWV 21** RAU KEV KAWM UA LEJ

Tswv yim mus nrog cov xib hwb qhia ntawv sib tham—Koj & koj tus me nyuam tus xib hwb yuav sib koom tes tau li cas los mus pab kom koj tus me nyuam paub ntaub ntawv ntxiv



PHAB NTAWV 22:

Cov lo lus hais txog kev qhia ntawv nrog cov lus txhais—Cov lus txhais ntawm cov lo lus hais txog kev qhia ntawv uas tseem ceeb rau qib 8



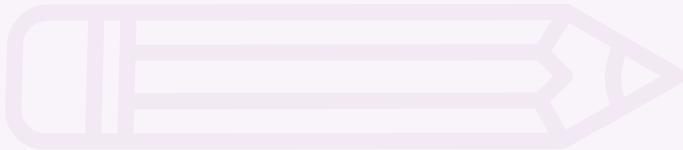
Kew Kawm Lus As Kiv (English Language Arts)

DAB TSI YOG COV UAS KOJ TUS ME NYUAM YUAV TSUM TAU PAUB & YUAV TSUM UA TAU

Nyob hauv qib 8, cov tub ntxhais kawm ntaww yeej nyeem cov ntaww uas qhia ntaww yam hais txog ib yam dab tsi & soj ntsuam saib cov neeg sau cov ntaww ntawd sau hais txog dab tsi & saib lawv sau hais li cas. Cov tub ntxhais kawm ntaww yuav tsum nug lawv tus kheej hais tias saib qhov twg yog qhov uas cov neeg sau cov ntaww ntawd xav ib yam & qhov twg yog qhov lawv tsis xav ib yam. Cov me nyuam kawm qib 8 yeej mus nrhiav saib qhov uas cov neeg sau ntaww hais ntawd puas muaj tseeb. Lawv yuav muab ib cov lus nyob hauv cov ntaww coj los tso rau hauv cov ntaww uas lawv sau & muab cov lus nyob hauv cov ntaww sau ua luv luv coj los tshawb lawv cov tswv yim. Lawv yuav nyeem ntaww los mus kawm ib cov lo lus tshiab & los mus kawm kom paub ntaw ntxiv txog lub ntiaj teb. Cov ntaww uas cov tub ntxhais kawm ntaww yuav tsum yog cov uas muaj ib nrab yog cov lus hais txog tej yam tsis muaj tseeb & muaj ib nrab yog cov lus hais txog tej yam muaj tseeb. Cov phau ntaww yuav tsum muaj cov ntaww uas nyuaj thiab yooj yim & yuav tsum qhia cov tub ntxhais kawm ntaww hais txog cov tib neeg, cov chaw, & tswv yim tshiab, suav nrog rau cov tswv yim ntawm cov tib neeg Dakota & Anishinaabe yav tag los & tam sim no.

Cov me nyuam kawm qib 8 yuav tsum nquag sau ntaww. Lawv yuav sau cov ntaww luv & cov ntaww ntev uas yuav tau siv ntau ntau hnub coj los sau. Cov tub ntxhais kawm ntaww yuav tsum paub feem ntau ntawm kev sau cov lo lus kom muaj cov tsiaj ntaww yog tag (spelling), paub cov lus tswj kev siv lus thiab sau ntaww (grammar), & kev siv cov cim (punctuations), & paub hais tias yuav siv li cas. Lawv yuav tsum tau paub ntaus ntaww. Lawv yuav xyaum tshawb fawb, xyaum xav & xyaum muab cov ntaww lawv sau kho dua raws li cov lus uas lawv tus xib hwb & cov tub ntxhais uas nrog lawv kawm ntaww ua ke tau hais rau lawv hais txog lawv cov ntaww. Lawv sau ntaww hais txog ntaw yam tswv yim rau ntau qhov uas qhia hais tias yog vim li cas.

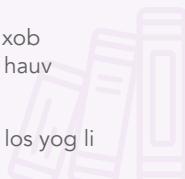
Yog xav pom tag nrho lub xeev cov qauv rau ELA rau cov tub ntxhais kawm qib 8, mus xyuas ntawm no: education.mn.gov/mde/dse/stds/ela



Cov me nyuam kawm qib 8 yuav tsum tau paub ua cov ntaub ntawv hauv qab thaum lub xyoo kawm ntawv xaus.

TXUJ CI PAUB SAU THIAB PAUB NYEEM NTAWV

- ☑ Nyeem tau cov ntawv uas muaj rau cov me nyuam kawm qib 8 nyeem, uas yog theem Lexile 925-1185
- ☑ Nyeem tau cov ntawv uas muaj cov me nyuam kawm qib 8 nyeem kom tsis txhob muaj qhov khuam, uas yog nyeem tau 180 lo lus rau ib feeb
- ☑ Nyeem tau ntawv ua lub suab uas qhia hais tias lawv yeej nkag siab cov ntawv thaum lawv nyeem
- ☑ Sau & rov qab muab cov ntawv uas lawv sau tag kho kom sau tau cov lo lus muaj cov tsiaj ntawv yog tag (spelling), sau tau ntawv yog tag raws li cov lus tswj kev sau ntawv (grammar), & sau tau kom muaj cov cim (punctuation) yog tag. Lawv yuav nrhiav kev los ua kom lawv tsis txhob siv ntawv ntawv lo lus los mus qhia lawv cov tswv yim & nrhiav saib puas muaj tej yam uas lawv tsis tag yuav muab sau ntawv ntawv rau hauv
- ☑ Siv khoom technology los mus sau ntawv & los mus kawm ntawv nrog lwm cov me nyuam & los mus tshawb fawb txog ib yam dab tsi uas siv cov chaw los sis ntawv uas ntseeg hais tias yuav tsis muaj cov lus cuav thiab muaj lus pom ntawv ntawv seem tuaj hais txog yam ntawd
- ☑ Ntxiv rau kev siv cov ntawv nyob hauv zaj dab neeg & kev muab cov ntawv sau ua luv luv, muab cov ntawv paraphrase (muab cov ntawv sau dua kom nkag siab yooj yim)
- ☑ Yuav tsum tsis txhob siv cov ntawv uas tsis yog lawv cov, uas yog muab hu ua plagiarism (kev muab cov ntawv uas yog lwm tus neeg sau coj los ua tus kheej cov ntawv)
- ☑ Nkag siab lawv cov hneev taw nyob hauv khoom hluav taws xob (digital footprint), uas yog cov ntaub ntawv peb tso tseg rau hauv internet thaum peb nkag mus siv
- ☑ Ntaus tau 40 lo lus rau ib feeb. Ntaus tau ntawv tsawg kawg los yog li ntawm peb phab ntawv hauv ib teev



KEV KAWM TXOG LUB NTIAJ TEB LOS NTAWM TXOJ KEV NYEEM NTAWV

- ✓ Nug & teb cov lus nug hais txog cov ntawv uas lawv nyeeem tag. Muab ntawu cov ntawv coj los sib piv & rov qab muab cov ntawv nyeeem dua los mus nrhiav tej cov lus coj los ua kom lawv nkag siab. Ua tau cov nram qab no:

- Muab cov ntsiab lus sau ua hais ua luv luv uas yeej tsis muab cov lus qhia txog lawv txoj kev xav coj los tso ntxiv rau li
- Nrhiav tau cov ntsiab lus tseem ceeb, cov lus tseem ceeb, & cov tswv yim tseem ceeb
- Kawm saib tus kws sau ntawv muab ib tug neeg tseem ceeb, ib qhov dab tsi rau lub tseem ceeb los sis ib lub tswv yim tseem ceeb coj los qhia thawj zaug zoo li cas & saib cov ntawm no ho pauv zoo li cas
- Piav qhia saib cov lus nyob hauv tej ntug ntawm cov ntawv muaj dab tsi rau lub ntsiab lus ntawm zaj dab neeg
- Piav qhia hais tias saib cov dab neeg nthuav qhia zoo li cas & saib cov neeg nyob hauv zaj dab neeg daws cov teeb meem li cas
- Kawm saib cov kws sau ntawv & qhov lawv pom ho muaj kev cuam tshuam li cas rau cov ntawv
- Muab cov dab neeg tsis muaj tseeb coj los piv rau tej yam tshwm sim raws keeb kwm
- Nug tus kheej saib qhov uas ib tus kws sau ntawv txoj kev xav puas muaj tiag & saib nws puas muaj pov thawj txaus coj los qhia hais tias lawv cov tswv yim yeej muaj tseeb

✓ Siv cov lus qhia nyob hauv cov ntawv, cov phau ntawv txhais lus, los sis lub hauv paus ntawm lo lus coj los nrhiav cov lus txhais ntawm cov lo lus tshiab uas lawv tsis paub hais tias yog txhais li cas & cov paj lus (figurative language)

✓ Txiat txim saib cov ntaww hais txog tib lub tswv yim twg yog cov uas pom zoo ib yam hais txog tej yam uas muaj tseeb, tej yam uas yog kev xav, los sis tej yam uas pom

✓ Hais & piav qhia txog ib cov lus los sis ib cov lus sib cav nyob hauv kev sau ntaww los sis kev sib tham. Siv ib qhov pov thawj los ntawm ib cov ntawv uas ntseeg hais tias yuav tsis muaj lus cuav thiab hais tau meej & tseem ceeb coj los txhawb ib cov lus. Qhia hais tias lawy yeej nkag siab qhov ntawd los sis cov ntawv

✓ Sau ntawv txog ib cov ntaww tom qab muab cov ntaww ntawd nyeeem tag. Muaj ib cov lus qhia ua ntej nrrog ib nqis lus uas xav hais tias yog vim li cas, cov tswv yim piv txvw uas muab tso raws sij hawm, & ib cov lus xaus hais tias yog vim li cas

✓ Siv cov ntaww uas laww sau coj los piav qhia txog ib yam dab tsi. Muab cov ntaww uas laww sau tso kom sib dhos zoo & siv cov lo lus uas cuam tshuam rau yam ntawd. Siv tej yam uas muaj tseeb & cov piv txvw nyob hauv cov ntawv coj los qhia hais tias lawy yeej nkag siab

✓ Sau cov tswv yim uas yeej hais tau txaus ntseeg. Siv ntaw txoj kev coj los hais kom tis neeg nyeeem pom zoo li qhov nws hais. Paub teb cov lus uas neeg tsis pom raws li qhov nws pom

✓ Sau ntawv los tsim & piav qhia txog laww tus kheej (paj huam, dab neeg, cov phau ntawv qhia txog tus kheej los sis lwm tus neeg, tej yam neeg ib txwm ntseeg, & yeeb yam). Muaj cov lus sib tham uas pom zoo li tus neeg nyob hauv zaj dab neeg pom & pom zoo li cov lus nyob hauv cov ntawv. Siv txoj kev sau ntawv uas yog (piv txvw, chapters (tshooj ntawv), stanzas (kev muab cov lus tso sib dhos zoo li paj huam), scenes (cov chaw)), tshwm sim li cas, mab mam nthuav ib yam zuij zus los sis nthuav ceev, sib dhos zoo, & muab cov lo lus uas lub suab rov zoo ib yam los mus ua kom tus neeg nyeeem xav tau tej yam dab tsi



COV PIV TXWV RAU ELA RAU QIB 8

Hauv qab no yog ib qhov piv txwv ntawm cov ntawv uas cov me nyuam kawm qib 8 yuav tau nyeem. Cov ntawv ntawm no yog nyob rau theem Lexile 1100. Cov me nyuam kawm qib 8 yuav tsum nyeem tau cov ntawv ntawm no kom tsis txhob muaj qhov khuam & kom muaj lub suab zoo li txoj kev xav hauv cov lo lus. Tom qab ntawd, lawv yuav tsum qhia tau rau koj hais tias saib yog muaj dab tsis tshwm sim nyob hauv cov ntawv & teb tau cov lus nug nyob hauv qab no.

IS JURASSIC PARK POSSIBLE? by T.J. Resler

In the Jurassic Park/Jurassic World movies, scientists bring back dinosaurs that have been extinct for at least 65 million years. (Spoiler alert: Bad idea.) Is this purely fiction, or could we actually see a Brachiosaurus, Triceratops or T. rex stomping around a theme park someday? To clone, which means to recreate, an extinct dino, you need some of its DNA. DNA is a special material inside every living thing that carries all the instructions for what it'll be like, including how it will look and what it can do (DNA is shaped kind of like a teeny-tiny spiral staircase, but it takes a very powerful, very specialized microscope to see it.)

In the movies, scientists find fragments of dinosaur DNA in the blood of an ancient mosquito. The mosquito had gotten stuck in gooey tree resin, which fossilized into hard amber. The scientists extract the DNA fragments, fill in gaps with other animals' DNA to get a full strand of DNA, and tinker a bit along the way. Then they clone lots of darling baby dinos... which grow up to be not-so-darling adult dinos. The main challenge in creating a real-life Jurassic Park is finding dinosaur DNA. Is it locked away in amber, Jurassic Park-style? Amber does a great job of preserving all kinds of cool things, like fossilized flowers, insects and even tiny lizards. But DNA? Nope. A team of researchers tried to extract DNA from a couple of bees caught in tree resin that wasn't even hardened into amber yet — and they couldn't do it. It turns out that amber (and resins in general) aren't great at preserving DNA.

But that isn't the biggest problem. As soon as something dies, its DNA begins to decay. Water, sunlight, microbes in soil, even other gunk in the creature's own body, all cause chemical reactions that mess up the DNA. "All of these things will break down the DNA into smaller and

¹ "Is Jurassic Park Possible?" uas T.J. yog tus sau Resler. Copyright © 2022 by CommonLit, Inc. Cov ntawv ntawm no yog ib cov uas peb tau ntawv tso lus raws li CC BY-NC-SA 4.



more degraded pieces until, eventually, there is nothing left,” biologist Beth Shapiro, an expert on ancient DNA, told Live Science. It takes a long time for DNA to degrade completely. Scientists think DNA can last 1.2 million years, maybe even 3 million (some say 6 million) under certain conditions. They’ve identified DNA from a 70,000-year-old Neanderthal fossil, a 700,000-year-old ancient horse bone, and even a one million-year-old woolly mammoth tooth. But a dinosaur from 65 million to 245 million years ago?

Researchers recently discovered something that looks kind of like DNA in a really well-preserved 125 million year-old fossil of a peacock-sized dinosaur called Caudipteryx and in a 76 million-year-old duck-billed dinosaur called Hypacrosaurus. But they have no idea if it’s really from the dinosaurs; it could be from a microbe or something like a worm that crawled by more recently. And even if it really is dinosaur DNA, it may be seriously messed up. So a real-life Jurassic Park may not be possible (sorry, dino fans). But Woolly Mammoth Park? Maybe! Woolly mammoths — the shaggy, long-tusked relatives of today’s elephants and the best-known of all the mammoths — first appeared about 300,000 years ago during the Pleistocene epoch, which included the Ice Age. That means their DNA is not anywhere near as old as dino DNA. And, yes, scientists have successfully extracted DNA fragments from the teeth of multiple mammoths, which lived in a frigid area that is now Siberia. Some of the DNA, from an ancestor of the woolly mammoth, was 1.1 million to 1.2 million years old! The cold environment of northern Siberia, where there are large areas of permafrost (permanently frozen ground), helped preserve the mammoth DNA. The mammoth DNA survived because it was more deep-frozen than fossilized, the science and tech website Gizmodo reported. Teams of scientists from nine countries pieced together the mammoth DNA fragments to learn about mammoths and how they evolved. Now a group of scientists wants to see herds of woolly mammoths wandering across the Arctic tundra again.

They are working on bringing them back — a process they call “de-extinction.” They plan to insert traits from a woolly mammoth into the DNA of an Asian elephant, the mammoth’s closest living relative. They’d pick the most mammoth-like traits, like its shaggy coat and ability to withstand the cold. Then they would clone the

animals. To be honest, it wouldn't create a true woolly mammoth, but more of a hybrid woolly mammoth-Asian elephant or a "mammophant." But, if everything goes according to plan, the animal will look and act like a woolly mammoth. Just like in the Jurassic Park movies, not everyone is enthusiastic about the idea of bringing extinct animals back to life. Even if scientists can bring back woolly mammoths, should they? The idea raises a lot of questions about right and wrong. What if the environment has changed too much for woolly mammoths to thrive now? What if the plants they used to eat no longer exist? Or what if the elephants who would raise the first mammophants don't accept them? And then there's the question of people. Many more people live in the Arctic now than when woolly mammoths roamed the earth. Other scientists think it would be better to use the process to keep currently endangered animals from going extinct. Scientists could insert traits into animals to make them healthier or to help them adapt faster to climate change, which threatens the habitats of many animals. The scientists working to de-extinct woolly mammoths point out that the animals could help restore aspects of the tundra ecosystem that have suffered since the animals went extinct. Eventually, the scientists would like to see herds of woolly mammophants wandering freely through the tundra. But the first few would be safeguarded in a nature reserve in Siberia. And what would they call this reserve? Pleistocene Park!



COV LUS NUG KOM TO TAUB

Teb cov lus nug nram qab no, siv cov ntawv thiab cov lus nyob hauv cov ntawv coj los txhawb koj cov lus teb.

1. Vim li cas es cov scientists (kws kawm txog tej yam dab tsi) thiaj li nrhiav dinosaur (coj tsiaj uas muaj ntev ntev puag thaum ub lawm) cov DNA?
2. Vim li cas es ib lub Jurassic Park uas yog tiag thiaj li tsis yog ib yam uas yuav ntseeg tau?
3. Vim li cas es cov scientists thiaj li xav hais tias lawv yeej rov qab ua tau kom muaj tus tsiaj hu ua woolly mammoth (tus ntxhw loj loj puag thaum ub)?
4. Tus kws sau ntawv yeej piav qhia hais tias yuav siv technology li cas es thiaj li yuav ua tau kom rov qab muaj cov tsiaj uas tu noob lawm. Qhov zoo thiab qhov tsis zoo ntawm txoj kev ua kom rov qab muaj cov tsiaj zoo li dinosaurs los sis woolly mammoth yog dab tsi?



Hauv qab no yog ib qhov piv txww ntawm cov ntaww uas cov me nyuam kawrm qib 8 yuav tau sau. Peb nug tus tub ntxhais kawm ntaww hais tias "How is a cell like a familiar building or city (ib lub keeb nqaj taww (cell) yog zoo li cas thaum muab piv rau ib lub tsev los sis ib lub nroog)?"
Tus tub ntxhais kawm ntaww muab ib lub keeb nqaj taww (cell) coj los piv rau lub roob Mount Olympus & sau nws cov lus zoo li nws yog ib tus tswv ntuj Greek.

How Mount Olympus is Like a Cell

Have you ever looked at your own cells? No, of course not. You're a mortal and you don't have the power or technology to do that. Maybe some day in the future we shall grant humans the power of microscopic vision. Who knows? That's up to Zeus. Cells are amazing things. Each one is individually different. When I first looked at my own cells I thought, "WOW there is nothing like this in the whole world." I was wrong. Recently, I came to the realization that my own dear Mount Olympus is very much like a cell itself. There are many components in a cells that can also, in a way, be found on Mount Olympus. The structure of a cell and the components within are very like Mount Olympus.

What? You don't believe me? Well fine! Come on. I'll show you.

Oh, and by the way my name is Eos and I'm the Greek goddess of dawn. I'm responsible for the rising of the sun. Be careful and follow me. Don't let anyone else see you. Mortals aren't allowed up her. Let's go.

In an animal cell, the cell membrane controls what enters and leaves the cell. There are small pores that allow things of different sizes through. Up her, on Olympus what keeps the mortals from entering, or leaving (if they are to be kept here) is an instilled fear of us. Mortals dare not enter unless told to by one of the gods or goddesses. They dare not leave either.

Now, all of you stand still. No, it's okay. This is just a powder that will make you invisible. Nobody move or make a sound. Got it? If you do, it will be your life

Qhov lus tswv yim tseem
ceeb nyob hauv cov ntaww
meej meej, qhia tus neeg
nyeem hais tias yuav muaj
dab tsi txuas ntxiv tom ntej

Muab cov tswv yim coj los tso
kom sib dhos zoo - ib kev mus
ncig saib Mount Olympus - coj
los qhia hais tias txhuu yam nyob
hauv ib lub keeb nqaj ntaww yeej
yog zoo li txhuu yam uas muaj
nyob ntawm Mount Olympus.

Siv tej lus & cov lo lus
tseem ceeb coj los piav
qhia txog qhov ntawd

²Cov ntaww uas Student Partners tso lus rau peb muab coj los siv ua piv txww. "Cov Ntaww Cov Tub Ntxhais Kawm Ntaww Sau Uas Peb Muab Coj Los Siv Ua Piv Txww." Achieve the Core (Ua Tiav Lub Hauv Paus), <https://achievethecore.org/category/330/student-writing-samples>

wasted. I just have to check to make sure that neither Zeus or Hera are in their throne room...Okay, we can go in. Just go silently and quickly! This is **Zeus and Hera's** throne room, which is very similar to the **nucleus of a cell**. In a cell, the nucleus is the control center of activity on a cellular level. It's from here that Zeus and Hera control the happenings of immortals and mortals alike. It's like the control center for the world.

Holy Zeus! Someone's coming in. It's Zeus himself! Quick into here. No noise, no movement, no nothing! Those of you who can peer through the window, do so. You'll be able to see the head god himself! Zeus and his wife, Hera, control the gods, goddesses, and mortals. They are like the chromosomes in a cell. In a cell, the chromosomes determine what kind of cell it will be and how it acts. That is what Zeus and Hera do in the world.

In a cell, the ribosomes turn amino acids into proteins. On Mount Olympus we make many things like laws, rules, and the weather. **However**, the most material thing that we make are lightning bolts. Of course, only Zeus can actually make them. **Although** others can use them if they have his permission. See how Zeus only uses his left hand for tasks? That is because his right hand is used to make lightening. Like the ribosomes, his hand takes raw materials (the abundant plasma and energy up here) and creates a whole new product (lightning.) His hand is like the ribosomes in a cell.

Good, Zeus is leaving. This closet is starting to get stuffy. We should go quickly out into the hall. Now take a right, then a left into here. This is the courtyard. Immortals don't have to eat, but we do it for the pleasure of it. Also, eating helps keep us healthy and happy. The fountains flow with sweet juices and wines. The trees have the best fruits possible. That table over there is always supplied with the most delectable food imaginable. Those

Siv tej lus & cov lo lus
tseem ceeb coj los piav
qhia txog qhov ntawd

Siv cov lo lus uas yog &
cov lo lus pauv uas tsis
zoo ib yam coj los ua kom
cov tswv yim tsis txhob
muaj qhov khuam & qhia
hais tais saib cov tswv
yim sib dhos zoo li cas

chests that are spread around are filled with gold and jewels for our taking. Wearing these helps enhance our godly image. This courtyard represents the vacuoles in a cell. In the vacuoles, large amounts of what the cell needs are stored. Here large amounts of what immortals thrive on is stored.

Don't be alarmed. Those are our mortal slaves. They won't tell on us because I have ordered them not to. In an animal cell, mitochondria store energy and release it when necessary. They power the cell. Here on Mount Olympus, we could not get by without thee slaves. They perform almost every task that can even slight be considered laborious. The energy they get from food is stored in their bodies and released in order to do tasks.

In a cell, the ER, or endoplasmic reticulum, help to move substances around the cell. The halls and paths we've been following are very similar to the ER, they are like the roads that contain all movement.

Quick, into this room here. That was Hermes the messenger god. Now that I think of it, he is very much like the golgi bodies in a cell. The golgi bodies package and ship substances from place to place in a cell. Hermes, similarly wraps items up in goat skin and takes them from one person, immortal, or Titan to another.

Now, let's go back to the entrance. You should go. Soon every god, goddess, demi-god, and demi-goddess will be coming. There is a big meeting tonight. So they were all summoned here. By now, I'm sure you can see how Mount Olympus is structured like a cell. Just follow that path down there until you get home. Wait, the day is almost over and it'll get dark. Each of you swallow some of this powder. There, this enables you to fly, which is much faster than walking. If you promise not to tell anyone about this and you can go. You swear? Okay, good bye.

Muaj ib lus xaus uas rov
qab piav txog lub tswv yim
tseem ceeb hauv zaj dab



COV DEJ NUM NIAJ HNUB UA LOS MUS TXHAWB TXOJ KEV KAWM:

★ *Yog koj tus me nyuam kawm qib 8 pheej nres nyob rau ntawm tej lo lus, los sis nws lub suab pheej nrov tsis xws yees thaum nws nyeem ntawv, mus nrog nws tus xib hwb sib tham hais txog qhov nyeem tau ntawv zoo. Ntxiv rau qhov ntawd, hais kom koj tus me nyuam xyam nyeem ntawv uas tsis muaj ntawv ntaw kawm nws nyeem tau ntawv zoo ntxiv, zoo li cov paj huam los sis cov dab neeg luv*

- Hais kom koj tus me nyuam kawm qib 8 mus xaiv ib phau ntawv uas nws xav nyeem nws tus kheej txhua hnub. Nyem ntaw phau ntawv ntev ntev mus yeej yog ib yam tseem ceeb. Cia koj tus me nyuam xaiv phau ntawv, sub nws thiaj li yuav xav nyeem
- Nquag mus siv Nroog Hennepin cov tsev cia ntawv - nws yog qhov uas yeej siv tau dawb! Txhua tus neeg yeej mus thov tau ib daim npav siv tsev cia ntawv dawb, tsis hais txog hais tias saib tus neeg txoj kev khiaj tuaj nyob hauv lub teb chaws yuav yog muaj zoo li cas li
- Xaiv ib yam dab tsis coj los kawm ua ke. Nyem cov phau ntawv, mus saib hauv online, los sis mus tshawb fawb me ntsis txog ib yam dab tsis ua ke. Nug saib tus me nyuam kawm tau dab tsis nyob hauv cov ntawv uas nws nyeem. Hais kokm nws muab qhov nws kawm tau coj los qhia rau koj, qhia rau cov phooj ywg, los sis qhia rau lwm tus neeg hauv tsev neeg
- Hais kom koj tus me nyuam xyam sau ntawv. Lawy yeej siv tau ib phau ntawv coj los sau txhua yam uas tshwm sim rau lawy hauv txhua hnub, yeej sau tau ntawv ua tej tsab ntawv los sis email, los sis sau tau lus tseg hais tias saib lawv kawm tau dab tsis
- Mloog cov lus tshaj tawm hu ua podcast ua ke & sib tham los sis sau ntawv hais qhov koj kawm tau
- Qhia koj tus me nyuam kawm qib 8 kom nws paub hais tias nws yeej siv tau tej yam uas nws kawm nyob hauv tsev kawm ntawv coj los ua nws lub neej yav tom ntej:
 - Hais kom cov phooj ywg & tsev neeg qhia koj tus me nyuam kawm qib 8 kom nws paub hais tias nws yuav muab tej yam uas nws kawm nyob hauv tsev kawm ntawv coj mus siv li cas
 - Mus koom ib qho kev qhia sau ntawv nyob ntawm lub chaw uas pej xeem mus siv
 - Hais kom koj tus me nyuam mus pab hauj lwm nyob ntawm cov kev sib sau & cov dej num nyob hauv lub zej zos
- Nrog koj tus me nyuam kawm qib 8 sib tham txog tsev kawm ntawv qib siab. Mus nrhiav saib cov ntaub ntawv twg yog cov uas koj yuav tsum tau muaj los mus ua tsab ntawv thov mus kawm tsev kawm ntawv qib siab. Qhia koj tus me nyuam uas kawm tsev kawm ntawv theem nrub nrab (middle school) kom nws paub hais tias cov kev kawm uas nws tab tom kawm tam sim no yeej yog ib cov uas yuav npaj kom nws mus kawm tau tsev kawm ntawv theem siab (high school) & tsev kawm ntawv qib siab (college)
- Muab ib cov hauj lwm hauv tsev rau koj tus me nyuam ua txhua lim tiam uas nws yuav tau nyeem ntawv zoo li ua zaub mov noj, mus yuav khoom, & txheeb cov ntawv uas neeg xa tuaj
- Teev ib lub sij hawm uas cov ntaub ntawv uas coj los kawm hauv tsev & ua raws nraim li ntawd Xyuas kom meej hais tias koj tus me nyuam yeej ua tag nws cov ntaub ntawv uas coj los kawm hauv tsev txhua hnub

**TSWV YIM MUS NROG COV XIB
HWB QHIA NTAWV SIB THAM**

1. Koj muab puas tau cov qhab nia ntawm qhov kev ntsuas kuv tus me nyuam txoj kev paub nyeem ntawv uas nyuam quav muaj tag los tsis ntev no rau kuv saib?
2. Kuv tus me nyuam kawm qib 8 ua tau dab tsi zoo, & koj yuav muab cov txuj ci uas nws paub ua ntawm no coj los siv li cas nyob hauv chav kawm ntawv?
3. Cov ntawv uas koj xaiv rau cov me nyuam nyeem yog koj xaiv li cas? Kuv tus me nyuam kawm qib 8 puas yuav pom cov ntsej muag & cov chaw uas laww paub nyob hauv cov phau ntawv? Lawv puas yuav paub ib cov tib neeg thiab chaw tshiab?
4. Cov me nyuam kawm qib 8 yuav kawm tau dab tsi thaum lawv nyeem ntawv? Kuv tus me nyuam kawm qib 8 yuav tsum nkag siab & paub tham txog dab tsi yog muab saib raws li cov ntawv uas nws nyeem? Cov tswv yim uas lawv nyeem hais txog keeb kwm & science yog cov twg?
5. Kuv tus me nyuam kawm qib 8 puas muaj cib fim los mus xaiv cov phau ntawv uas nws xav nyeem? Puas yog nws tsuas nyeem tau cov phau ntawv uas koj tau xaiv rau nws nyeem xwb? Puas yog nws tsuas nyeem tau cov phau ntawv uas muaj rau cov me nyuam kawm ib qib ntawv twg nyeem xwb? Nws puas nyeem tau tej cov ntawv uas yuav pab nws nyob hauv chav kawm ntawv & nws xav nyeem?
6. Kuv tus me nyuam kawm qib 8 puas sau tau ntawv coj los qhia hais tias nws yeej paub cov ntawv uas nws tab tom nyeem & tab tom kawm? Nws puas siv cov lus nyob hauv cov ntawv coj los ua piv txwv & puas muaj cov lus qhia meej txaus? Nws puas siv cov lo lus uas muab cov tsiaj ntawv tso yog (spelling), siv cov lus tswj txoj kev sau ntawv los sis siv lus yog tag (grammar), & siv cov cim yog tag (punctuation)? Yog nws siv tsis yog, kuv yuav ua li cas kuv thiaj li yuav pab tau nws?
7. Kuv tus me nyuam sau tau ntawv ntawv npaum li cas nyob hauv lub sij hawm kawm ib chav tauj ib hnub? Koj yuav ua li cas los muab cov lus qhia hais tias koj xav li cas txog cov ntawv nws sau & nws muab cov ntawv nws sau kho li cas?
8. Koj puas muaj cov ntawv ua piv txwv rau cov ntawv uas kuv tus me nyuam sau? Kuv tus me nyuam puas tau rov qab muab ib cov ntawv sau dua?
9. Kuv tus me nyuam kawm qib 8 puas hais tau lus & mloog neeg hais lus nyob hauv chav kawm ntawv uas yeej qhia hais nkag siab cov ntawv uas nws tab tom kawm? Nws puas siv cov pov thawj nyob hauv cov ntawv, siv cov lus teb uas muaj lus qhia meej, & hais lus muaj ntsiab lus txaus coj los qhia hais tias nws yeej nkag siab? Yog nws ua tsis tau zoo li ntawd, cov teeb meem uas nws muaj yog dab tsi?
10. Kuv yuav ua tau dab tsi coj los pab kuv tus me nyuam kawm qib 8 nyob hauv chav kawm ntawv? Nws yuav ua li cas es nws thiaj li yuav muaj kev sib raug zoo nrog koj & nws thiaj yuav sib zog rau nws txoj kev kawm?



Kev Kawm Ua Lej

DAB TSI YOG COV UAS KOJ TUS ME NYUAM
YUAV TSUM TAU PAUB & YUAV TSUM UA TAU

Nyob hauv qib 8, cov tub ntxhais kawm ntawv yeej sib zog los mus kawm ua cov lej uas muaj functions & lej sau ua kab ncaj ncaj. Cov tub ntxhais kawm ntawv yuav tsum tau sib pab nyob hauv chav kawm ntawv, sib tham hais tias saib lawv yuav ua cov lej li cas, & koj qhia kuv kuv qhia koj. Lawv yuav tsum tau siv khoom technology coj los saib & muab cov equations & lus tso ua duab (graph). Cov me nyuam kawm qib 8 yuav tsum tau siv cov lus qhia txog lej coj los qhia hais tias yog vim li cas (mathematical arguments) & siv ntau txoj kev coj los ua ib cov lej. Lawv yuav tsum tau ua cov lej uas yog naj npawb & lus tib si, suav nrog rau cov teeb meem uas niaj hnub muaj. Qhov kawg, lawv yuav tsum tau kwv yees ua ntej lawv ua cov lej & yuav tsum paub hais tias saib qhov lawv kwv yees yeej yog ib qhov tsim nyog muaj.

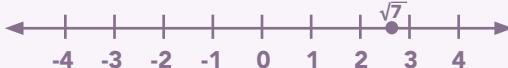
Yog xav pom tag nrho lub xeev cov qauv rau Kev Kawm Ua Lej rau cov tub ntxhais kawm qib 8, mus xyuas ntawm no: education.mn.gov/MDE/dse/stds/Math

KEV KAWM UA COV LEJ UAS MUAJ RAU QIB 8

Cov me nyuam kawm qib 8 yuav siv feem ntau ntawm lawv lub sij hawm mus kawm cov tswv yim nram qab no. Lawv yuav tsum tau nkag siab zoo txog cov tswv yim ntawm no thaum lub xyoo kawm ntawv xaus.

- Ⓐ Siv cov rational naj npawg cov los qhia qhov kev ntaus nqi ntawm cov naj npawb uas tsis yog naj npawb rational

$\sqrt{7}$ tsis yog rational vim hais tias yuav muab sau ua lej feem (fraction) tsis tau. Qhov kev ntaus nqi ntawm $\sqrt{7}$ yog nyob hauv nruab nrab ntawm 2.6 thiab 2.7



- Ⓐ Ua cov lej uas muaj tus lej uas qhias tias muaj zog pes tsawg npaug suav nrog rau cov exponents uas muaj lej negative & lej sib faib.

Siv cov properties ntawm cov integer exponents coj los sau qhov lej ua muaj nuj nqi ib Yam. Siv tus naj npawb nws tsoob nws coj los qhia hais tias cov equations yog muaj li cas

$$27^{\frac{1}{3}} = \sqrt[3]{27^2} = \sqrt[3]{729} = 9$$

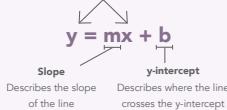
- Ⓐ Sau cov naj npawb loj & me uas yog siv scientific notation; ua lej suav ua npaug & lej sib faiv uas muaj cov naj npawb sau ua scientific notation

$$4.2 \times 10^{-4} \rightarrow 0.00042$$

$$86,000 \rightarrow 8.6 \times 10^4$$

- Ⓐ Ua cov lej uas muaj linear equations nrog ib tus variable & cov systems of linear equations. Siv linear equations coj los qhia & muab txoj kev sib cuam tshuam ntawm tej Yam niaj hnub muaj & cov lej coj los tso ua duab (graph)

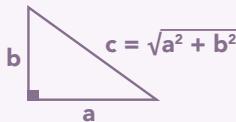
- Ⓐ Siv linear equation coj los qhia tej Yam uas yog tej pawg sib rub ua ke. Nrhiav qhov slope (nqes hav) & y-intercept (qhov tshuam y)



- Ⓐ Muab cov patterns (qauv) & relationships (kev cuam tshuam) nyob hauv cov lej uas muaj ob tus variables xyuas kom meej meej. Siv functions coj los tsim qauv rau qhov muaj kev cuam tshuam nyob ntawm ob tug variables. Siv tables (rooj teev lus), graphs (duab), & equations coj los tsim & txhais cov linear functions

- Ⓐ Qhia & siv tus qauv **Pythagorean Theorem** coj los ua cov lej

Rau cov right triangle (ib tus qauv muaj peb ceg kaum uas muaj ib ceg yog dav 90°), $a^2 + b^2 = c^2$





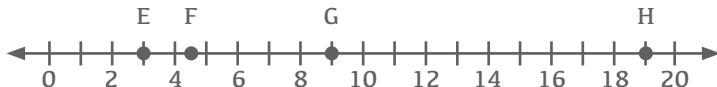
COV LEJ UA PIV TXWV RAU QIB 8

Hauv qab no yog ib cov lej ua piv txwv ntawm cov lej uas cov me nyuam kawm qib 8 yuav tau ua.³

1. Nqe twg hauv qab no yog kev qhia tawm uas tsis tsim nyog?

- a) $4\sqrt{18}$ d) $4 + \sqrt{16}$
b) $\sqrt{16} + \sqrt{25}$ e) $10\sqrt{9}$
c) $12\sqrt{4}$ f) $3 + \sqrt{15}$

2. Pom muaj plaub qho chaw nyob hauv txoj kab teev lej, qhov chaw twg yog qhov qhia $\sqrt{9}$?



3. Ua kom txhua cov kev qhia hauv qab no yooj yim:

$$10y^8 \cdot 2y^2 = \frac{4x^3}{3x^6} =$$

$$\frac{x^{20}}{x^5} = \frac{2x^2 \cdot 3x^3}{2x^5} =$$

4. Qhov dav ntawm Teb chaw Suav cov av muab suav tag nrho ua ke yog muaj kws yees li ntawm 9.326×10^6 kis lo mev xim fab xim meem (square kilometers). Muab qhov dav ntawm Teb Chaws Suav cov av sau zoo li qhov ib txwm siv.

5. Ib lub hmoov av hnyav **0.00000000753** kis lus (kilograms). Tus lej no yog sau li cas yog muab sau ua scientific notation?

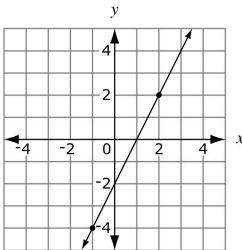
6. Qhov twg yog ib qhov nonlinear function?

- a) $\frac{1}{2}x + y = 11$ c) $xy = \frac{1}{2}$
b) $x - y = 1$ d) $x = \frac{1}{2}y$

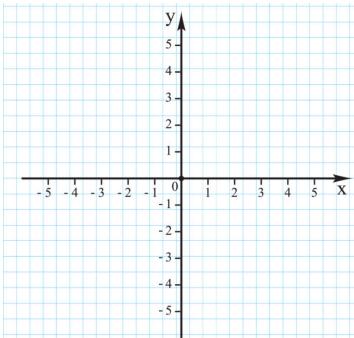
7. Tus nqi yuav ib phau ntawv suav tag nrho ua ke, c, yeej yog nyob ntawm saib yuav pes tsawg phau ntawv, b. Sau ib qhov equation coj los qhia tus nqi zoo li ib qhov function ntawm cov phau ntawv.

³Cov ntaub ntawv uas tso tawn los ntawm Minnesota Comprehensive Assessment. MDE yog tus muaj cau txwv tsis pub muab luam tawn <https://education.mn.gov/MDE/dse/test/items/>

8. Daim duab ntawm ib txoj kab yog txoj pom nyob hauv qab no. Qhov nqes hav ntawm txoj kab yog li cas?

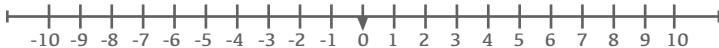


9. Kos txoj kab uas hla dhau qhov chaw (1, 2) thiab qhov nqes hav ntawm txoj kab yog (-3/4)



10. Qhov kev ntaus nqi ntawm $4j - |j - 6|$ thaum $j = -3$?

11. Pab tub ntaus suab paj nruag hauv lub tsev kawm ntawv tab tom muag ib cov khoom qab zib coj los nrhiav nyiaj rau lawv mus ntaus suab paj nruag rau ib qho chaw twg uas yuav nraug \$1,625. Tkhua txhua ib qhov khoom qab zib twg ua lawv muag tau, lawv yeej tau \$0.75. Lawv twb tau \$967 lawm. Sau qhov kev suav lej uas tuaj yeem muab siv los nrhiav tus lej ntawm cov pas khaub nooj qab zib qis tshaj plaws, n, uas lawv yuav tsum muag kom khvw tau qhov seem ntawm cov nyiaj yuav siv rau kev taug kev.
12. Cov chaw Q(2, 2), R(4, 4), thiab S(8, 4) yog qhov kawg ntawm daim duab muaj plaub fab sib txig zog QRST. Qhov kev suav lej ntawm txoj kab uas suav muaj STyog dab tsi?
13. Muab qhov lej uas nrhiav tau nyob hauv qhov inequality (cov lej tsis muaj sib npaug) $-4x + 4 > 3$ coj mus tso ua duab rau ntawm txoj kab nyob hauv qab no.



Cov lus teb yog nyob rau ntawm phab ntawm 20.

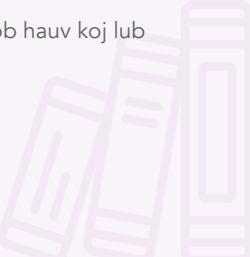


COV DEJ NUM NIAJ HNUB UA LOS MUS TXHAWB TXOJ KEV KAWM

- Nrog koj tus me nyuam kawm qib 8 sib tham hais txog cov lej uas nws ua tau. Dab tsis yog cov uas lawv tab tom kawm tshiab? Lawv puas muaj teeb meem dab tsi? Koj pab puas tau lawv?
- Thaum koj tus me nyuam kawm qib 8 xav kom koj pab nws ua cov ntaub ntaww uas nqa coj los kawm hauv tsev, nws cov lus nug uas yuav pab ua kom nws paub daws qhov teeb meem. Tsis txhob daws qhov teeb meem rau nws.
- Pab koj tus me nyuam kawm qib 8 nrhiav tej Yam uas yuav pab nws kawm tau tej Yam dab tsi. Hais kom koj tus me nyuam mus nrog nws tus xib hwb sib tham hais txog tej Yam uas yuav pab tau, zoo li dej num rau nws xyam, muab sij hawm ntxiv, los sis nrhiav kev pab ntxiv.
- Hais kom koj tus me nyuam tham txog tej Yam uas nws tab tom kawm & qhia saib nws pom tej Yam ntawm no nyob ib ncig ntawm nws rau qhov twg. Piv txwv, nws pom cov lej me tshaj 0 (negative) nyob qhov twg uas tsis yog thaum lawv nyob hauv chav kawm ua lej?
- Coj koj tus me nyuam nrog koj mus yuav koom. Hais kom nws muab cov nqi coj los sib piv los mus nrhiav qhov koom uas tus nqi pheej yig tshaj. Hais kom nws kww yees saib qhov se rau Yam koom ntawd yog yuav raug npaum li cas
- Nug koj tus me nyuam kawm qib 8 hais txog cov lej uas nws xav muab ua kom paub hais tias yog li cas. Nws puas siv tau cov lej ntawm no nyob ntawm nws txoj hauj lwm thaum nws muaj hnub nyooog lawm?
- Hais kom koj tus me nyuam kawm qib 8 mus tshawb fawb txog tej Yam uas nws nyiam. Piv txwv, hais kom nws mus nrhiav 30 zaj nkauj nws nyiam mloog nyob hauv lub hlis no. Nrhiav saib qhov range (qhov ntev thiab luv), mean (qhov nruab nrab suav tag nrho ua ke), & mode (qhov muaj ntaw zaj nkauj ntev ib Yam) ntawm cov nkauj yog li cas
- Qhia koj tus me nyuam saib koj siv lej rau dab tsi nyob hauv koj lub neej txhua hnub

ANSWER KEY

1: $4\sqrt{18}$ and $3 + \sqrt{15}$; **2:** E; **3:** $20y^{10} / 4/3x^3 \cdot x^{15}$; **3:** **4:** 9,326,000 kilómetros cuadrados; **5:** 7.53×10^{-10} kilogramos; **6:** c) $xy = \frac{1}{2}$; **7:** $c = f(b)$; **8:** 2; **9:** Deberían trazar una línea que conecte el número 6 en el eje y (eje vertical) con el número 7 en el eje x (eje horizontal); **10:** -21; **11:** $0.75n = \$658$; **12:** $y = x - 4$; **13:** x es menor o igual que -4





**TSWV YIM MUS NROG COV XIB
HWB QHIA NTAWV SIB THAM**

1. Koj muab kuv tus me nyuam qhov qhab nia xeem lej uas nyuam qhuav muaj tag los tsis ntev no puas tau rau kuv saib?
2. Cov tswv yim tseem ceeb uas cov me nyuam kawm qib 8 yuav kawm hais txog kev ua lej yog cov twg? Kuv tus me nyuam puas nkag siab cov lej uas muab rau nws kawm? Koj muab puas tau ib cov ntawv ua piv txwv coj los rau kuv saib?
3. Kuv tus me nyuam npaj li cas los ua ib qhov lej uas muaj cov kev ua lej nyuaj? Kuv yuav ua li cas es kuv thiaj li yuav pab tau nws thaum nws muaj cov teeb meem uas yuav daws tau nyuaj?
4. Kuv tus me nyuam yuav tsum tau nkag siab & paub tham hais txog dab tsi ntawm cov ntaub ntawv uas nws tau kawm?
5. Kuv tus me nyuam puas qhia tau rau koj hais tias nws nkag siab cov lej uas nws kawm tag? Yog nws qhia tsis tau, cov teeb meem uas nws muaj yog dab tsi? Kuv yuav ua li cas es thiaj li yuav pab tau nws?
6. Kuv yuav ua li cas es kuv thiaj li yuav pab tau & hais tau kom kuv tus me nyuam kawm qib 8 los mus sib zog rau nws txoj kev kawm?





to taub txog
cov ntsiab lus

Cov lus txhais ntawm cov lo lus siv hauv kev qhia ntawv

Cov xib hwb qhia ntawv yeej siv cov lo lus uas muaj ib cov lus txhais rau ib yam nyob hauv cov tsev kawm ntawv. Nkag siab cov lo lus ntawd yuav pab koj mus nrog koj tus me nyuam tus xib hwb qhia ntawv sib tham.

HNEEV TAW HAUVE KHOOM HLUAV TAWS XOB (DIGITAL FOOTPRINT)

Cov lus muaj nyob hauv internet hais txog ib tus tib neeg thaum nws nkag mus ua ib yam dab tsi nyob hauv online. Qhov ntawm no yog muaj cov lus uas nws muab coj mus sau rau hauv social media, cov duab, cov khoom nws yuav & lus nws sau hais txog cov khoom ntawd nyob hauv online, cov passwords, cov kev mus tso npe txais xov xwm, los sis ib yam lus dab tsi & ntaw yam ntxiv.

EQUATION (IB QHOV LEJ UAS MUAJ LEJ NYOB OB SAB SIB NPAUG ZOS)

Ib nqis lus ua lej uas muab ob yam khoom dab tsi coj los tso hais tias ntaw sib npaug zos Ntau zaus, cov equations yeej muaj ib cov naj npawb uas tsis paub hais tias yog pes tsawg (hu ua variables) uas muab sau ua ib tus tsiaj ntawv. Piv txwv: **3b + 5 = 14**

EXPONENT (TUS LEJ NYOB SAUM TOJ NTAWM IB TUS IB SAB UAS QHIA HAIS TIAS YUAV MUAB TUS LEJ NTAWD SUAV UA PES TSAWG NPAUG)

Ib tus exponent yog hais txog tus lej uas qhia hais tias yuav muab ib tus lej suav ua pes tsawg npaug.

$$\text{base } -7^3 = 7 \times 7 \times 7$$

EXPRESSION (LUS QHIA TXOG IB QHOV LEJ)

Naj npawb, cov cim, & cov cim ua lej (zoo li + & thiab ÷) uas muab lej tso ua ke los qhia hais tias ib yam dab tsi ntaw nqi npaum li cas. Piv txwv, $y + 4$ yog ib cov lus qhia, & $3 - x/2$ los kuj yog ib cov lus qhia.

FIGURATIVE LANGUAGE (LUS SIV TXAWV COV LUS TXHAIS NTAWM LO LUS LOS SIS PAJ LUS)

Ib lo lus siv txawv cov lus txhais ntawm lo lus ntawd yeej siv txoj kev siv lus txawv uas yuav ua rau nqis lus zoo mloog, hais tau zoo, & muaj kuab. Piv txwv: "My dog's coat is as black as coal (Kuv tus dev cov plaub yeej dub npaum nkaus li cov ncaig thee)." "She is feeling blue (Nws pom xim xiav hauv nws txoj kev xav)." "He fought with the strengthem of a lion (Nws siv lub zog ntawm ib tus tsov ntxhuav los mus tawm tsam)." Cov me nyuam kawm qib 8 yuav tsum siv cov lus nyob ib ncig ntawm ib qhov paj lus coj los txiav txim saib ib qhov paj lus yog txhais li cas & yuav tsum paub hais tias qhov no yeej txawv cov lus txhais ntawm cov lo lus.

FUNCTION (IB YAM LEJ UAS COV LEJ NYOB HAUVE MUAJ KEV SIB CUAM TSHUAM)

Ib qhov expression (lus qhia txog lej) uas txhais ib t xo j kev sib cuam tshuam nyob ntawm ib tus variable (tus variable uas tsis cuam tshuam rau lwm tus lej) & lwm tus variable (tus variable uas cuam tshuam rau lwm tus lej). Yog qhov function yog linear, ces thaum muab coj mus tso ua duab rau ntawm cov kab sib tshuam nyob ntawm ib phab ntawv, nws yuav tsim ib t xo j kev khia v ncaj nqes hav uas tsis pauv.

LEXILE (QHOV KEV NTSUAS TXOJ KEV PAUB NYEEM NTAWV)

Ib qhov kev ntsuas muaj theem uas cov tub ntxhais kawm ntawv, cov xib hwb qhia ntawv, & cov niam txiv nyiam muab siv coj los qhia ob yam:

1) T xo j kev paub nyeem ntawv ntawm ib tus tub ntxhais kawm ntawv

2) Qhov nyuaj ntawm cov ntawv

Ntau zaus, koj yeej nrhiav tau tus naj npawb Lexile nyob rau ntawm phab ntawv tom qab ntawm phau ntawv los sis yog koj siv lub np e ntawm phau ntawv coj mus nrhiav ntawm www.lexile.com. Cov theem Lexile uas haum rau qib ntawv:

Qib 6-8 theem 925-1185

Linear Equation (Tus qhia ib qhov lej uas yuav tsim ib t xo j kab khia v ncaj)

Koj xauj ib lub t sheb kauf uas koj yauu tau them \$10 rau thawj 1 teev, & koj yauu tau them \$5.50 rau txhua txhua ib teev ton qab thawj teev. Tus nqi (y) xauj lub t sheb kauf vab ntev li 6 teev yog pes tsawg?"

Muab $y =$ tus nqi suav tag nrho ua ke
Muab $x =$ cov sij hawm ua teev

$$y = 10 + (x-1) \cdot 5.50$$

System of Linear Equations (Ib qhov lej uas muaj ib los sis ntawm tsaj ib qhov linear equations)

Koj ua hauj lwm nyob ntawm lub rooju muaj khoom thaum koj lub tsev kawm ntawm muaj kev sib tw pov basketball. Koj muaj hot dogs & chips. Ib tus hot dog twg yog \$1.50 & ib hnab chips twg yog \$0.50. Thaum muaj qhov key sib tw tag, cov nylaj koj tau uas muab suav tag nrho ua ke yog \$78.50. Tag nrho cov hot dogs & chips uas koj muaj tag yog 87. Cov khoom uas koj muaj tag, muaj pes tsawg qhov yog hot dogs & muaj pes tsawg qhov yog chips?

Muab $x =$ cov hot dogs uas muaj tag
Muab $y =$ uas cov chips uas muaj tag

$$\begin{aligned} 1.5x + 0.5y &= 78.50 & (\text{Qhov equation cuam tshuam rau qhov nqi}) \\ x + y &= 87 & (\text{Qhov equation cuam tshuam tag nrho cov khoom uas muaj tag}) \end{aligned}$$

LINEAR EQUATION (TUS QAUQ QHIA IB QHOV LEJ UAS YUAV TSIM IB TXOJ KAB KHIAV NCAJ)



Ib qhov equation nyob ntawm ob tus variables uas yuav tsim ib txoj kab khiav ncaj thaum muab tso ua duab rau ntawm ib phab ntawv muaj kab sib tshuam

PARAPHRASE (KEV MUAB COV LUS NEEG SAU COJ LOS SAU KOM HAIS RAWS LI QHOV NKAG SIAB)



Muab ib nqis lus los sis ib sob lus sau zoo li qhov koj nkag siab.

PLAGIARISM (KEV MUAB COV NTAWV UAS YOG LWM TUS NEEG SAU COJ LOS UA TUS KHEEJ COV NTAWV)



Kev muab lwm tus neeg cov ntawv los sis tswv yim coj los ua koj li.

PROPORTIONAL RELATIONSHIPS (COV KEV SIB CUAM TSHUAM NTAWM IB COV LEJ)

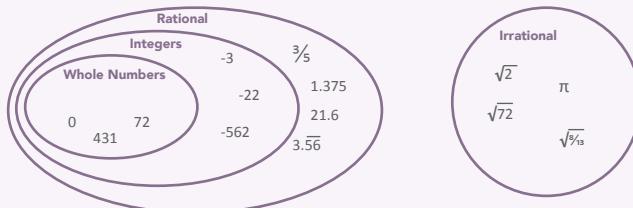


Ib qhov kev sib cuam tshuam nyob ntawm ob tus lej txawv nyob hauv ib cov lej uas ib tus lej yeej yog tus tsis pauv ntawm lwm tus lej. Piv txwv, txhua tus ntsaum yeej muaj 6 phab kav ceg, yog li ntawm, nyob hauv ib lub zes ntsaum, tag nrho cov kav ceg suav ua ke yog rau npaug ntawm tag nrho cov ntsaum suav ua ke. Yog li ntawd, qhov hais tias muaj pes tsawg txhais kav ceg yeej proportional rau qhov hais tias muaj pes tsawg tus ntsaum.

RATIONAL NUMBERS (COV LEJ UAS YUAV MUAB SAU TAU UA LEJ FEEM UAS TUS LEJ HAUQ QAB TSIS YOG XOOM)



Ib tus rational number yog ib tus lej uas yuav muab sau tau ua lej feem (fraction) ntawm ob tus lej. Ib tus irrational number yog ib tus lej uas yuav muab ua lej feem tsis tau. Yog ib tus lej muaj decimal uas nws yeej tsis muaj qhov kawg li & nws yeej tsis muaj cov qauv uas rov qab muaj li, tus lej ntawd yog ib tus lej irrational.



LUS QHIA HAIS TIAS MUAB QHOV TWG LOS

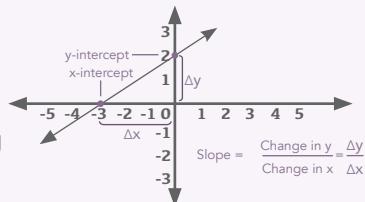
Minnesota Department of Education Academic Standards <https://education.mn.gov/mde/dse/stds/>
Seek Common Ground Family Guides <https://seekcommonground.org/family-guides>
Math Milestone Grade Level Grids (Phab Ntawv Qhia Theem Lej Uas Cov Me Nyuam Yuav Tsim Paub Ua Raws Qib Ntawv Lawv Kawm) <https://www.mathmilestones.org/gradelevel-grids>

READING LEVEL (THEEM NTAWM TXOJ KEV NYEEM NTAWV)

Cov xib hwb qhia ntawv yeej ib txwm ntsuas saib ib tus tub ntxhais kawm ntawv paub nyeem ntaww txog theem twg, uas yog siv ib tus tsiaj ntawv los sis ib tus naj npawb coj los qhia. Qhov no yuav pab qhia cov xib hwb qhia ntawv hais tias saib dab tsi yog cov uas cov tub ntxhais kawm ntawv tseem yuav tsum tau kawm. Tiam sis muaj tej lub sij hawm, cov xib hwb qhia ntawv tsuas pub cov me nyuam nyeem cov ntawv nyob rau theem ntawd xwb. Ceev faj txog qhov kev yuav kom cov me nyuam nyeem ntawv zoo li no. Yuav tsum tsis txhob txwv kom cov me nyuam tsuas nyeem tau cov ntawv haum los sis qis dua rau lub hom phiaj ntawm qib ntawv lawv kawm xwb.

SLOPE (TXOJ KAB NQES HAV)

Qhov nqes hav ntawm txoj kab yog qhov qhia hais tias saib txoj kev kхиav mus rau sab twg & saib kхиav nqes hav npaum li cas. Qhov no yog qhov uas muab qhov pauv ntawm y faib rau qhov pauv ntawm x nyob hauv nrub nraub ntawm ob qhov chaw nyob hauv daim duab (graph).



SQUARE ROOT (TUS LEJ THAUM MUAB IB TUS NAJ NPAWB SUAV UA NPAUG RAU TUS NAJ NPAWB NTAWD)

Tus square root yog ib tus naj npawb uas, thaum mus suav ua npaug rau tus kheej, nws yuav qhia tus naj npawb thaum xub thawj. Piv txwv, 5 thiab -5 yeej yog tus square roots ntawm 25.

SCIENTIFIC NOTATION (IB TXOJ KEV SAU COV LEJ UAS LOJ DHAU LOS SIS ME DHAU)

Scientific notation yog ib txoj uas yuav muab siv tau coj los sau cov naj npawb uas loj dhau los sis me dhau lawm. Piv txwv, tus naj npawb 0.0000000000073 yog ib tus uas yeej muab sau tau zoo li 7.3×10^{-12}

TEXT COMPLEXITY (QHOV NYUAJ NTAWM COV NTAWV)

Ib qhov kev ntsuas hais tias saib ib cov ntawv nyuaj npaum li cas. Qhov nyuaj ntawm cov ntawv yeej yog muaj ntau ntau yam nyob hauv. Txoj kev muab cov lo lus coj los tso ua ib nqis lus & txoj kev xaiv cov lo lus yeej ua tau kom cov ntawv nyuaj tuaj. Ib cov ntawv yeej nyuaj dua yog cov neeg nyeem yuav tsum tau muaj txuj ci ntau ntxiv es lawv thiaj li yuav nkag siab hais tias yog txhais li cas, los sis yog cov ntawv yeej muaj ib cov lus txhais uas nyuaj.

THESIS STATEMENT (NQIS LUS QHOV TSEEM CEEB NTAWM IB COV NTAWV)



Ib nqis lus thesis statement yog ib los sis ob nqis lus uas muab lub tswv yim tseem ceeb nyob hauv cov ntawv coj los sau ua lus hais luv luv.

$$2x + 1 = 9$$

|
variable

VARIABLE (TUS TSIAJ NTAWW SAWV CEV IB TUS LEJ UAS TSIS PAUB HAIS YOG PES TSAWG)



Ib tus variable yog ib tus tsiaj ntawv uas muab siv coj los sawv cev ib tus naj npawb uas tsis paub hais tias yog pes tsawg nyob hauv ib qhov equation (ib qhov lej uas muaj lej nyob ob sab sib npaug zos los sis ib qhov math expression (ib cov lus qhia txog lej). Neeg yeej siv ib lub cim coj los tso ua cov variables (feem ntau yeej yog ib tus tsiaj ntawv).

Y-INTERCEPT (QHOV CHAW UAS IB TXOJ KAB LOS TXIAV Y)



Y-intercept yog qhov chaw uas thaum muab ib txoj kab coj los tso ua duab, nws los txiav phab y. Koj yeej mus saib tau ib qhov piv txww rau qhov ntawm no nyob ntawm cov lus txhais hais txog qhov nqes hav.

INTAWV CEEB TOOM



NTAWM CEEB TOO

Handwriting practice lines for the text "NTAWM CEEB TOO".



Great MN Schools yog lub chaw muab cov lus qhia ntawm
no rau koj siv, uas yog ib lub koom haum nyob ze ntawm
no uas tsis ua lag luam. Yog xav paub ntxiv & xav muab
nyiaj mus pab, mus rau ntawm greatmnschools.org.

Qhia rau peb hais tias saib
koj muab cov lus qhia ntawm
no coj mus siv li cas!



XOO KUV