Sets of Premises Puzzles

Here we provide thirty Premises Puzzles at the middle school level and thirty at the high school level. We suggest, however, that all students first play with the middle school sets. Each set includes a complete argument consisting of several premises and a conclusion, as well as a few irrelevant statements. The conclusion is always the statement that begins with the word *therefore*. Here, the irrelevant statements appear after the conclusion. All statements within each set should be cut apart and shuffled before giving the set to students. If you are playing the collaborative, active variation of the game, omit the irrelevant statements.

**Middle School**

Some fire stations have a pet Dalmatian.
All Dalmatians wear collars.
Therefore, some fire stations have a pet that wears a collar.
Jorge’s dog is a German Shepherd.
Some dogs like to swim.

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All owls have feathers.
No lizards have feathers.
Therefore, no lizards are owls.
No monkeys have feathers.
Some owls eat mice.

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If there is sufficient evidence for something, then it is accepted as true.
There is sufficient evidence that Crystal jaywalked.
Therefore, it is accepted as true that Crystal jaywalked.
People are innocent until proven guilty.
Crystal never tells the truth.

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All pink umbrellas are made by The Umbrella Company.
Everything made by The Umbrella Company is plastic.
Therefore, all pink umbrellas are plastic.
My sister’s favorite color is yellow.
Some umbrellas are made of cloth.
Everything made by The Umbrella Company is pink umbrellas.
No man is an island.
Bill is a man.
Therefore, Bill is not an island.
Jody is a woman.
This statement is a metaphor.
No people are mountains.

The edge of our solar system is eighteen billion kilometers from the Sun.
The Voyager 1 spacecraft is more than eighteen billion kilometers from the Sun.
Therefore, the Voyager 1 is outside our solar system.
Life that exists outside of Earth is considered alien.
Aliens are not able to communicate with humans.
Mars is populated by robots.

Do not let strangers into your house.
The babysitter is a stranger.
Therefore, do not let the babysitter into your house.
The babysitter has great recommendations.
Do not trust strangers with your children.
Babysitters often steal pizza from the refrigerator.

The more information something contains, the more important it is.
The Internet contains more information than any library.
Therefore, the Internet is more important than libraries.
Some libraries contain rare books.
Some websites contain false information.
You can believe what you read in books.
The amount of information on the Internet can be measured in exabytes.

Hippies smell bad.
Britta smells great.
Therefore, Britta is not a hippie.
Hippies have long hair and love drum circles.
Britta has long hair and loves drum circles.
Britta likes astrology.
Hippies are very nice.
Taking something that costs money without paying for it is stealing.
Pirating music is downloading it without paying for it.
Therefore, pirating music is stealing.
My sister says it’s okay to download music off the Internet.
Downloading music off the Internet is easy and cheap.
Very few people get caught downloading music off the Internet.
Musicians do not make a lot of money.
Musicians steal when they do not make enough money.

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A spork is a combination of a spoon and a fork.
Spoons are useful when eating liquids.
Forks are useful when eating solids.
Therefore, sporks are useful when eating liquids or solids.
Sporks should incorporate a knife element into their design.
Sporks are very cool.

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Geoff is wearing a disguise.
People who wear disguises are untrustworthy.
You shouldn’t associate with untrustworthy people.
Therefore, you shouldn’t associate with Geoff.
The disguise is not good at hiding Geoff’s identity.
Geoff enjoys wearing disguises.

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Everything grown-ups get to do is better than what kids get to do.
Grown-ups drink coffee.
Kids drink milk.
Therefore, drinking coffee is better than drinking milk.
Soda is worse for you than milk.
No one likes to drink tea.

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Things that are fast are better than things that are slow.
Movies are fast to watch.
Books are slow to read.
Therefore, movies are better than books.
Movies based on books are the best.
Some movies are longer than other movies.
Hiking is only fun when the weather is nice and warm.
The forecast for this weekend predicts over a foot of snow will fall.
A foot of snow is not nice or warm.
Therefore, this weekend, hiking would not be fun.
Sledding is fun in the snow.
It is crowded on trails when it is nice and warm.

You are exposed to radiation when you use cell phones and microwaves.
Radiation can hurt you.
No one should ever do something that could hurt him or her.
Therefore, no one should use cell phones or microwaves.
Microwave dinners are delicious.
Cell phones hurt when you drop them on your foot.

Bacon and pineapple pizza is the best kind of pizza.
Sauces make everything better.
Chipotle ranch is a sauce.
Therefore, putting chipotle ranch on a bacon and pineapple pizza would make it even better.
Chipotle ranch is not spicy enough.
The best things in life are free.

Having an after-school job builds character.
Having an after-school job earns money.
High schoolers today need to build character and earn money.
Therefore, high schoolers should get after-school jobs.
High schoolers often spend (rather than save) their money.
Having good character will make you happier in the long run.

Boys and girls distract each other in the classroom.
Single-sex classrooms consist of either all boys or all girls.
Classrooms with minimal distractions are better for learning.
Therefore, single-sex classrooms are better for learning.
Girls are too talkative.
Boys are more easily distracted than girls.
People should do what makes them happy.
Some people are happy to drink soda.
The government should make laws that make its citizens happy.
Therefore, the government should not ban soda.
Some government officials drink soda.
If you do not like something, you can choose to avoid it.

The government should try to ensure that women and men are treated equally.
Men can get drafted into the army.
Women cannot get drafted into the army.
Therefore, the government should create laws that allow women to be drafted.
Men make better soldiers than women.
Women sign up for the army voluntarily.

You should not spend money you do not have.
When you use a credit card, someone is loaning you money.
Money loaned to you is money you do not have.
Therefore, you should not use credit cards.
Loans are okay as long as you pay them back.
You should spend the money that you have.

All houses are painted blue.
The place I live is painted red.
No things that are painted red are painted blue.
Therefore, the place I live is not a house.
The ocean is blue.
Monika's favorite color is red.

If June wants a snack, then she will eat popcorn, but only in the afternoon.
June wants a snack.
It is after noon.
Therefore, June will eat popcorn.
Popcorn always gets stuck in her teeth.
June thinks popcorn is a healthy snack.
If it's morning, June eats pretzels.
Fatima is an engineer.
All engineers like math.
If people like math, then they will read books about it in their spare time.
Therefore, Fatima reads books about math in her spare time.
Fatima likes romance novels.
Books about math are expensive.
If something is expensive, then you should take care of it.

The tea cup ride at the fair spins in circles.
You get dizzy if you spin in circles.
You throw up if you get dizzy.
Therefore, if you go on the tea cup ride at the fair, you will throw up.
If you are dizzy, you can spin the other way to go back to normal.
Tyler went on the tea cup ride at the fair last summer.
You can get funnel cake at the fair.

If an animal has one horn, then it is a unicorn.
An Indian rhino is an animal.
An Indian rhino has one horn.
Therefore, an Indian rhino is a unicorn.
An Indian rhino is gray.
An Indian rhino is rotund.
Unicorns do not exist.

Mike plays the guitar.
People who play the guitar get calluses on their fingers.
Calluses make fingers look unsightly.
Therefore, Mike's fingers are unsightly.
Mike is embarrassed by unsightly fingers.
People who garden get calluses.
Mike does not like gardens.
The best music is beautiful.
Beethoven made beautiful music.
Justin Bieber does not make beautiful music.
Therefore, Beethoven made better music than Justin Bieber.
Some music that Beethoven made was not beautiful.
Justin Bieber has a beautiful haircut.
Beethoven's haircut will never be considered beautiful.

Classes that go outside are better than classes that stay inside.
The science class is going to the creek to look at tadpoles.
The creek is outside.
The math class is staying inside.
Therefore, the science class is better than the math class.
Math classes never study tadpoles.
Not all creeks have tadpoles.

High School

The constitutional right to bear arms means that American citizens have the right to own guns.
I am an American citizen.
Therefore, it is my right to own a gun.
Gun laws should be stricter.
Constitutional rights do not apply to felons.
Felons should be allowed to own guns.

Colleges want to know as much about a student as possible before admittance.
SAT and ACT scores are information about a student.
Therefore, it makes sense that colleges want to see a student's SAT and ACT scores.
The SAT and ACT identify a student's strengths in subjects that are important for success.
The SAT is unfair because it is not representative of the majority of real-world work scenarios.
The ACT grading system is better than the SAT grading system.
Adults can drink alcohol.
Eighteen-year-olds cannot drink alcohol.
Therefore, eighteen-year-olds are not adults.
People in the military do not drink alcohol.
Adults can serve in the military.
Eighteen-year-olds can serve in the military.
Drinking alcohol is not a mature thing to do.

Some video games depict violent acts.
Depictions of violent acts desensitize viewers to violence.
People who are desensitized to violence are more likely to commit violent crimes.
Therefore, some video games make people who play them more likely to commit violent crimes.
Some video games do not depict violent acts.
Video games that are not violent are more fun.

Outside of the U.S., people agree that soccer is normally called “football.”
There are more people outside of the U.S. than inside the U.S.
Whatever has the most people supporting it should be the norm.
Therefore, the U.S. should change the name of soccer to football.
We should change the name of American football.
The U.S. is not very good at soccer compared to European countries.
American football is similar to rugby.

Good owners do not let their dogs attack other dogs.
Christian’s dog is named Ruby.
Ruby just attacked a dog.
Therefore, Christian is not a good owner.
Ruby hates other dogs.
When Christian sees another dog, he pets it.
Good dog owners take their dogs on walks.
It is better to be smart than to have money.
College costs a lot of money.
College makes you smart.
Therefore, it is better to go to college.
Things that cost a lot of money will make you poor.
Smart people often wear glasses.
Glasses cost a lot of money.

Things make Jeanna happy.
Jeanna buys things.
Jeanna needs money to buy things.
Therefore, money makes Jeanna happy.
There are other things that make people happy besides money.
Money can buy a nice fedora or a boat.
Money cannot buy true friends.

Stalking is the act of secretly following an individual around and taking pictures of him or her.
The paparazzi follow movie stars around and take pictures of them.
People who stalk other people should go to jail.
Therefore, the paparazzi should go to jail.
Private investigators follow an individual around and take pictures of him or her.
No one should partake in stalking other individuals.
Private investigators can follow movie stars around and take pictures of them.

Vaccinations stop the spread of diseases.
Stopping the spread of diseases helps people.
The government should make laws that help people.
Therefore, there should be laws requiring vaccinations.
Vaccinations are required in schools.
People can transmit diseases without knowing they have them.
Some laws do not help people.
Some people smoke cigarettes in public places.
Many people do not like the smell of cigarette smoke.
Laws are meant to stop things that many people do not like.
Therefore, there should be laws to stop smoking in public places.
Second-hand smoke kills.
Many people do not mind the smell of cigarette smoke.
People are allowed to smoke inside some establishments.

Public transportation systems reduce traffic on highways.
Highways become clogged with traffic when a lot of people drive on them.
When highways are clogged, they are not helpful.
The government should prioritize money in order to help the most people.
Therefore, money should go to public transportation rather than building highways.
People need to get around in cities.
Public transportation systems help lots of people get around easily.
Commuting on highways costs more money than taking public transportation.

I will check out either a fantasy, mystery, or romance novel from the library.
At the library, I remembered that I do not like romance novels.
Mystery novels are only written by male authors.
I do not read books by male authors.
Therefore, I will check out a fantasy novel.
Female authors write better books than male authors.
The library has a large selection of books by male authors.

Henry's voice sounds like the voice of a cartoon character.
Cartoon characters sound silly.
People don't take people with silly voices seriously.
It is hard to be successful if people do not take you seriously.
Therefore, it is hard for Henry to be successful.
One cartoon character is Daffy Duck.
People in suits are very easy to take seriously.
In order to be a good driver, you must have quick reflexes.
In order to be a good driver, you must be able to see over the steering wheel.
First graders and eighth graders have quick reflexes.
First graders cannot see over the steering wheel, while most eighth graders can.
Therefore, most eighth graders would be good drivers.
Bad drivers crash their cars.
Steering wheels are often damaged in car crashes.

Harman is an artist in New York.
Artists in New York are rich.
Rich people have bad attitudes.
People with bad attitudes don't have many friends.
Therefore, Harman doesn't have many friends.
It is hard to be an artist in New York.
Many people in New York have bad attitudes.

Sometimes it is acceptable to do something that hurts an individual to benefit a collective group of people.
Torture hurts an individual.
Torture can help persuade someone to divulge information.
Some information can benefit a collective group of people.
Therefore, sometimes torture is acceptable.
Individuals can have information.
Some kinds of torture are far worse than other forms.

People should try to avoid excluding others.
You exclude others if you publicly celebrate a holiday that others don't celebrate.
Not everyone celebrates Christmas.
Saying “Merry Christmas” to everyone is a way of publicly celebrating Christmas.
Therefore, people should try to avoid saying “Merry Christmas.”
Some people don't celebrate any holidays in December.
Saying “Merry Christmas” is a gesture of good will.
Clothes are supposed to keep you decent and less exposed to the elements.
Clothes from a thrift store keep you decent and less exposed to the elements just as well as clothes from the mall.
Clothes from the mall cost more than clothes from a thrift store.
When the quality is the same, people should spend less money, not more money.
Therefore, people should buy clothes at a thrift store.
Clothes from the mall are more fashionable.
When you buy clothes at the mall, you can also go to the food court.

If my dried mangoes are gone, either I ate them, Katie ate them, or the janitor threw them away.
My dried mangoes are gone.
I did not eat my dried mangoes.
The janitor did not throw away my dried mangoes.
Therefore, Katie ate my dried mangoes.
The janitor sweeps our classroom at night.
Katie’s favorite food is chicken wings.
My dried mangoes are my favorite snack.

Recycling is good for the environment.
The government should make people do things that are good for the environment.
The government makes laws so people will do (or not do) certain things.
A way to make people do something is to fine them when they don’t do it.
Therefore, the government should make a law to fine people when they do not recycle.
It is good to make people do things they do not want to do.
Laws are always good.
Paying fines does not make people feel good.

We have technology to exterminate mosquitoes.
Mosquitoes spread diseases that kill humans.
Saving human lives helps humans.
We should use technology that helps humans.
Therefore, we should exterminate mosquitoes.
Mosquitoes are the worst insects.
Only female mosquitoes bite.
Mosquitoes breed in stagnant water.
When students get distracted, it is harder for them to learn.
Schools are a place where students should learn as much as they can.
Students get distracted by fashion trends like flashy sneakers and accessories.
A dress code that mandates school uniforms does not allow flashy sneakers and accessories.
Therefore, schools should require that all students wear school uniforms.
Students can be distracted by cell phones and MP3 players.
Students do not wear school uniforms to hip-hop shows.
Some students learn more in school than other students.

If you like things separately, then you like them mixed together.
Harriet loves almonds and marshmallows.
Harriet loves chocolate ice cream.
Rocky road ice cream has a chocolate base.
Rocky road ice cream has almonds and marshmallows in it.
Therefore, Harriet loves rocky road ice cream.
S’mores have marshmallows in them.
Butter pecan ice cream is for the elderly.

Cheerleaders and football players are athletes.
Athletes play sports.
Cheerleaders can do flips.
Football players run, hit, throw, or catch.
It is harder to do flips than to run, hit, throw, or catch.
Therefore, cheerleaders play a harder sport than football players.
Football players are often bigger than cheerleaders.
Lacrosse is a difficult sport.

If I do not go to prom, it will be because I was sick, the captain of the basketball team didn’t ask me, or I did not get a dress.
I bought a great prom dress at the thrift store for ten dollars.
I have been drinking orange juice every morning.
Drinking orange juice every morning keeps you from getting sick.
The captain of the basketball team is going to prom with my best friend.
Therefore, I will not go to prom.
The captain of the basketball team loves orange juice.
The cousin of the captain of the basketball team loves thrift stores.
Guns are often used in violent crimes.
Gun laws impose waiting periods, which prevent people from impulsively buying guns right away. If people have to wait before they react, they calm down and think about what they will do. When people are calm, they are less likely to commit a violent crime. Therefore, gun laws that impose waiting periods make people less likely to commit violent crimes.
Laws should mandate owners’ registering their guns.
Guns can be used to hunt.
People often commit violent crimes in fits of rage.
Most people who have guns are not criminals.

You must kill an animal to get its fur for a coat.
You should only support killing animals if it is for something you need.
Wearing fur coats is fashionable.
Being fashionable is not a need.
Wearing a fur coat shows that you support killing animals.
Therefore, you should not wear fur coats.

Nia is vegan.
Vegans do not eat any animal products.
Eggs and milk are animal products.
There are eggs and milk in the cookies on the counter.
Nia is close to the cookies on the counter.
Nia cries when she is close to yummy things she cannot eat.
The cookies on the counter are yummy.
Therefore, Nia is crying.
Vegans are crybabies.

Drugs are chemicals that have a physiological effect when introduced in the body. Changes in mental state are a physiological effect. Drugs should be regulated or banned by the government. Caffeine is a chemical that makes a person more alert. Increased alertness is a change in mental state. Caffeine is in coffee. Therefore, the government should regulate or ban coffee. Coffee is not as dangerous as other drugs. Coffee without any sugar added is superior to coffee with sugar. Caffeine is in soda and tea.