

CLASSROOM COMEDY

Comedy stimulates activity in brain regions associated with social engagement and improves retention of information. If we want to use comedy in the classroom, the first step is to learn how to think and communicate like a comedian. A comedian twists words and phrases in order to design surprising and unexpected narratives. Once learned, teachers and students can use this method of communication to enhance any lesson. The following example provides a glimpse into the mind of a comedian and demonstrates one way of leveraging comedy in the classroom.

START WITH THE CONTENT: RIGHT TRIANGLE TRIGONOMETRY

The following narrative is not funny, it's simply the content that we want to deliver and reinforce.

We have to solve this right triangle. We need to figure out all the missing lengths of the sides and angles. The easiest thing to solve is angle w because the sum of the angles of a triangle add up to 180 degrees. So angle y is 65 and angle x is 90, which means angle w is 25 degrees. Next let's figure out what a is. Well, what do we know? We know this angle y over here is 65 degrees and we also know the adjacent side and we know that a is the length of the side that is opposite to angle y . Now because we are looking at the opposite and adjacent, we can use SOH CAH TOA, specifically the TOA, which means tangent equals opposite over adjacent. So we can say that our tangent of 65 degrees is equal to the opposite side, which is a , over the adjacent, which is 5. Multiply both sides by 5 and a is equal to 5 times the tangent of 65 degrees. That means a is approximately equal to 10.7. Now we need to find b . We know this angle here with the little box across from the hypotenuse is a right angle. This means we can use the Pythagorean theorem to find b , the hypotenuse. So, $5^2 + 10.7^2 = b^2$. That means $139.49 = b^2$. Now we use the square root on both sides, meaning that b is approximately 11.8.

NEXT, PUNCH IT UP

[HTTPS://YOUTU.BE/MMBNPDXG1BM](https://youtu.be/MMBNPDXG1BM)

Now the challenge is to turn the narrative into a comedy routine. We can do this by analyzing each line of the above narrative in order to determine where comedic elements can be added. Below are several types of communication strategies that can be used to punch up a story.

<i>Literary Devices</i>	<i>Use homonyms, sarcasm, double entendre, simile, and hyperbole</i>
<i>Self-Deprecation</i>	<i>Make fun of yourself or your ideas Undermine your perspectives</i>
<i>Incongruence</i>	<i>Use language or an attitude that does not fit with the narrative</i>
<i>Power of Three</i>	<i>Make the third example in a list an unexpected conclusion</i>
<i>Double Standards</i>	<i>Point out hypocrisy and inconsistent applications of ideas</i>
<i>Inappropriate</i>	<i>Be playfully offensive (but never hateful)</i>
<i>Callbacks</i>	<i>Bring back an earlier detail in a different context</i>
<i>Specificity</i>	<i>Explore the look, smell, taste, and feel Determine how a variety of people would react</i>
<i>Logical Pattern</i>	<i>Point out a missing piece or step</i>
<i>Rabbit Hole</i>	<i>Identify a new tangential detail and expand</i>
<i>Put Myself In It</i>	<i>Determine what you would do in the situation</i>

The resulting script for the stand-up routine is below and includes explanations of the comedic elements and thinking. **Listen to the routine**, follow along with the script, and then go back and read the explanations. This will help illustrate how a comedian communicates.

We have to solve this right triangle

Okay, it's a right triangle because of that little box

See? Solved

Oh, it actually means we need figure out all the missing lengths of the sides and angles

Well, if I knew that I wouldn't have...

Never mind, let's do this

*Is there a way to misunderstand what 'solve this right triangle' means? Yes. Someone might think we are asking whether or not this is a right triangle. We can assume this perspective and answer that question by explaining that it is, in fact, a right triangle, thus the problem is solved. This is **incongruent** because obviously that's not what is being asked. Now can we bring in reality? Yes. Once we realize that what is being asked is more complicated, we can add some **hyperbole**, insinuating that I never would have started this problem if I knew how complicated it would be. This is also **incongruent** because of course a math problem is going to have multiple complicated steps.*

Now the easiest thing to solve is angle w

Because the sum of the angles of a triangle add up to 180 degrees

So angle y is 65, angle x is 90

Which means angle w is 25 degrees

Gah that's cold and I'm already exhausted

Since we have established that it is easy to solve for angle w, is there a way to then make it seem difficult? Yes. When it comes time to do the simple calculation, I can pause for a long time, using self-deprecation to insinuate that it's very difficult for me. Is there another way to understand 25 degrees? Yes. It can be an angle and a temperate. We can create incongruence by saying "Gah, that's cold."

Next let's figure out what a is

Well, what do we know?

We know this angle y over here is 65 degrees

And we also know Jay's side

Because it's something a jay sent

Adjacent, get it?

Sorry

Is there a word in this segment that can be a pun or double entendre? Yes. The word adjacent can be broken out to a jay sent. So, the side can be something 'a jay sent.' Now, because puns like this are generally considered low forms of humor, we can undermine our own joke by calling out that our pun is groanworthy, pointing out that it's a bad joke.

And we know that a is the length of the side that is opposite to angle y

So if angle y is Italy with its coasts, mountains and fine wines

Then a, the opposite, may be Saudi Arabia with its salt flats, gravel plains and oil

Saudi Arabia might say "Why are you staring at me all the time?"

Then y might say "Aaa we're opposites and say hello to your ma for me"

Is there another understanding of the word opposites? Can we create a metaphor? Yes. We can find two opposites outside of math that have some of the same features as our triangle. Side a is flat. What country is flat? Saudi Arabia. Now we add some specificity. Saudi Arabia has salt flats, gravel plains and oil. Side a is opposite of angle y. What country is the opposite of Saudi Arabia. Italy. Specificity, Italy has coasts,

*mountains and fine wines. If these two opposites were talking to each other, what would they say? Saudi Arabia (side a) might say "Why are you staring at me all the time?" Why is a **double entendre**. It means the word why but also refers to angle y. Saudi Arabia, side a, also suggests that angle y is staring, insinuating that it is directly opposite. How might Italy respond? Italy, angle y, might say "Aaa we're opposites and say hello to your ma for me." This reinforces that angle y and side a are opposites and also adds some **incongruence**. We can adopt an Italian accent and say something that an Italian-American might say. There is a funny SNL skit where Mark Wahlberg talks to animals and says, "Say hello to your mother for me." Since we have angles talking to each other in this bit, this fits.*

Now because we are looking at the opposite and adjacent

We can use our injured foot mnemonic

You know, SOH CAH TOA

Specifically, the TOA Which uses tangent

And here's a tangent for you

Last week I put my dog in a dress

And took her to the movies

We watched Marley and Me

Which was the wrong choice

She hasn't spoken to me since

But tangent also deals with opposite over adjacent

And that'll probably be more helpful here to find a

*Is there a way to create a **double entendre** from SOH CAH TOA? Yes. We can also say that as soak a toe ah. When might you soak your toe? When you have injured your foot. SOH CAH TOA is a mnemonic so we can say that it's our injured foot mnemonic. Since we are using TOA is this problem, and it deals with tangent, is the word tangent used outside of math? Yes. It's a homonym. It means a completely different line of thought or action. Before moving forward with the math, I can go off on a tangent.*

So we can say that our Italy tangent of 65 degrees

Is equal to the opposite, which is Saudi Arabia

Over the side that Jay sent

Callback: We can bring all the previously stated puns and metaphors together when building our equation to solve for a .

Multiply both sides by 5

And a is equal to 5 times the tan of 65 degrees

Now you might be wondering what I am wondering

Can you get tan 5 times when it's 65 degrees?

And you're darn right you can

But make sure to use sunscreen

In addition to slowing aging of the skin

Sunscreen prevents facial brown spots and skin discolorations

But also a is approximately equal to 10.7.

Callback: Earlier we created incongruence by suggesting that angle w is 25 degrees, and that's cold. We can bring back the same incongruence by going on another tangent and down a rabbit hole. If a is equal to 5 times the tan of 65 degrees, is there something weather related in this equation? Yes. Tangent is typically written as tan. You get tan out in the sun. Can you get tan when it's 65 degrees? Yes. If you are out in the sun, getting tan when it's 65 degrees, what might you want to do? Wear sunscreen. Why? Because it protects you. NOTE: We could continue to go down this rabbit hole by talking about the type of sunscreen, what it smells and feels like, etc.

Done? Nope.

Now we need to find b

Okay, I found it, there it is

Oh, we need to solve for b

Well, that's a bit more difficult

Callback: In the first segment we created incongruence by misunderstanding what "solve this right triangle" means. We can bring back the same idea here when we are asked to find b . We can simply point to b and say, "There it is." Then we can realize what is really being asked, that we need to solve for b , and that it's more difficult.

We know this angle here with the little box

Is always say things like

Hey the sky is blue

I always have to stare at hypotenuse

Everyone deserves cake on their birthday

And we're like you are SO right

And that's why they call it a right angle

Is the word right a homonym? Yes. It means a 90-degree angle in math but also means true or correct as a fact. Since we are personifying angles and sides in this triangle (they are taking on human attributes like speech), what are some right things a right angle could say? We can use the power of three. The right angle might say the sky is blue (expected), that they always have to stare at hypotenuse, that they are opposite from the hypotenuse (expected), everyone deserves cake on their birthday (subjective, silly, and unexpected). We can respond to the right angle by saying that they are right. And being right is what makes them a right angle. This is incongruent because right angles saying true things is not what makes them 90 degrees.

This means we can use the Pythagorean theorem to find b, the hypotenuse

So, $5^2 + 10.7^2 = b^2$, the hypotenuse, squared

And clickity clack clack

$139.49 = b^2$

Use the square root on both sides to root out that square

Meaning that b, let's call b Billy Joel, is approximately 11.8

What is an absurd and incongruent way of saying "use your calculator to solve this equation?" We can say Clickity clack clack, which is onomatopoeia. Since we have personified most of the angles and sides to create incongruence, we can personify b. We can call that side Billy Joel, because the name start with b.

Then Billy Joel looks at angle x and sings

You may be right

I may be crazy

But it just may be a hypotenuse you're looking for

If Billy Joel was side b, what would he do? He would sing a song about how the right angle is looking for (and opposite from) the hypotenuse. What song's lyrics can be adapted to fit? You May Be Right.