

Trigonometry Project

Creating a Comic Strip

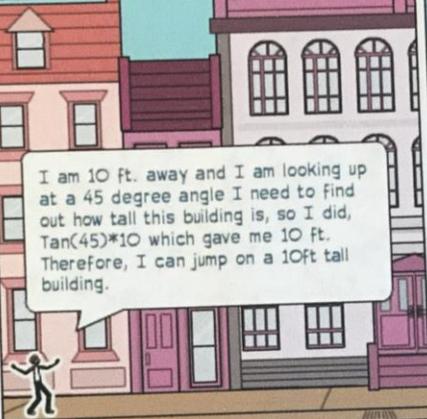
Created by Thao Le

Mark the High Jumper

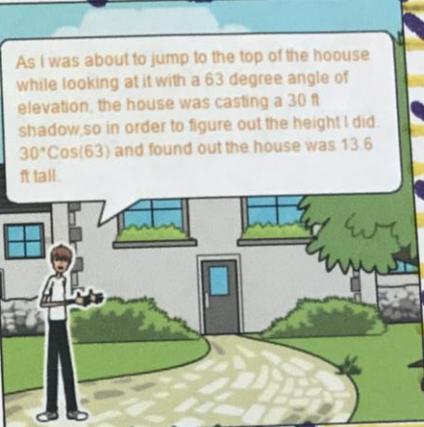
My name is Mark and I have the ability to jump super high. Don't believe me? Just watch.



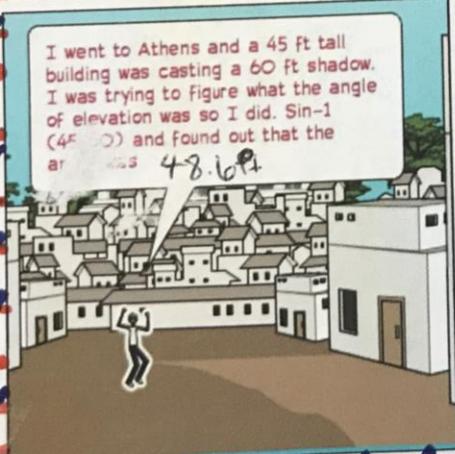
I am 10 ft. away and I am looking up at a 45 degree angle I need to find out how tall this building is, so I did, $\tan(45) \cdot 10$ which gave me 10 ft. Therefore, I can jump on a 10ft tall building.



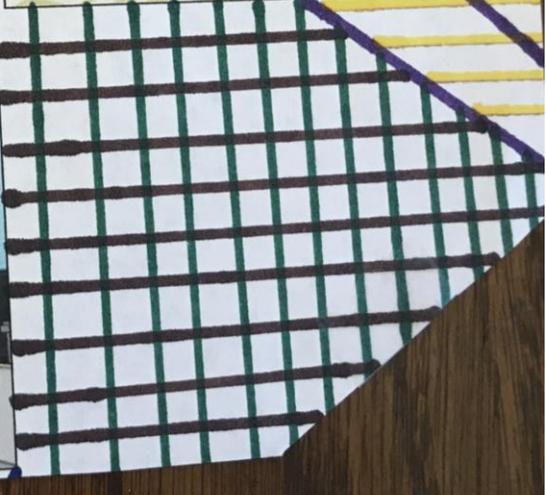
As I was about to jump to the top of the house while looking at it with a 63 degree angle of elevation, the house was casting a 30 ft shadow, so in order to figure out the height I did $30 \cdot \cos(63)$ and found out the house was 13.6 ft tall.



I went to Athens and a 45 ft tall building was casting a 60 ft shadow. I was trying to figure what the angle of elevation was so I did $\sin^{-1}(45/60)$ and found out that the angle was 48.16°.



That's all to my awesome jumping ability adventures.



Joji is looking for safari man for a cool thumbnail for his youtube video. Of course safari man got himself stuck in a tree. Joji is standing 10ft from the tree, making a 53° angle. He plans on using trig, with $\tan(53) \times 10$ to find out the height of the tree, which lets him know what ladder to get. He finds out the tree is 13.3 ft



Sadly, Safari man falls out of the tree whilst Joji is trying to help him down. This results in a visit to the ER.



Safari man is now in a wheelchair and using the hospital ramp. Joji wants to see the degree the ramp makes, knowing he is 5 ft from the edge of the ramp and its hypotenuse is 6 ft. He uses trig, with the formula $\cos^{-1}(\frac{5}{6})$ to find the angle, which is 33.6° .



In the end, Joji only did that to make safari man want and suffer. (Safari man is low key a pro so)



3 weeks after, safari man recovers and Joji wants to build him a slide in Congo. Joji knows the slide makes a 57° angle and the ladder is 7 ft, but wants to know how long the slide itself is. Again, he uses trig, using $\frac{7}{\sin(57)}$. He finds out the slide is 8.3 ft long.



The End

Joji and Safari had much more accidents and adventures somehow always involving geometry and ER visits

Name: _____

Date: _____

Period: _____

My Trigonometric Script Project PreAP/IS

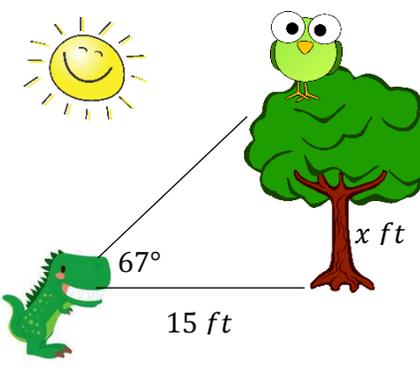
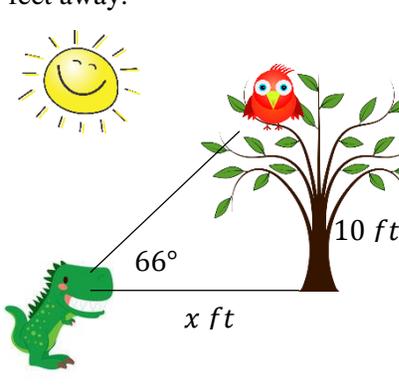
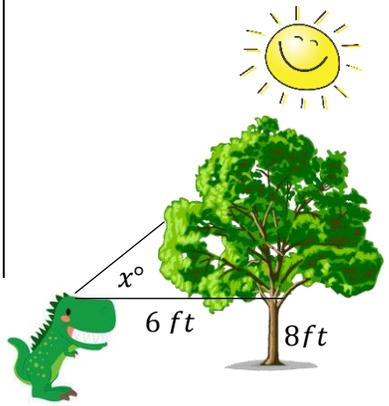
Objective: To create a comic strip that involves a storyline using mathematical problems with trigonometry. Your final project can be hand-drawn or printed.

Rubric/Requirements:

Due Date: _____

- _____/10 **A storyline with a Title**
- _____/10 At least 5 strips
- _____/50 **Three** different trigonometric problems (sine, cosine, or tangent) with correct solutions. (At least one with finding an **angle**)
- _____/10 Colored and Creative
- _____/10 Animations Drawn or Printed
- _____/10 Neat and Legible
- _____/100 Total Points

“Berp” by: Ms. Le

<p>Berp is a t-rex that lives in the Amazon. One day, Berp gets hungry and sees a bird on top of the tree. Berp is standing 15 feet away looking at the tree at an angle of 67°. He wonders how high up the bird is. So he uses trig. He finds out that $\tan(67) \cdot 15 = 35.3$. So the bird is 35 feet high.</p> 	<p>Since the bird is too high up for Berp to reach. He decides to find another meal. So he sees another bird that is 10-ft high and his angle to the tree is 66°. So he uses trig to figure out how far away he is. He finds out that $\frac{10}{\tan(66)} = 4.45$. He is only 4.5 feet away.</p> 	<p>Berp runs towards the bird but the bird starts flying away.</p> 	<p>Berp is really sad and decides that he is going to be a vegetarian. Since he is 6 feet away from the 8-foot tree, to find the angle of elevation he uses trig again. He figures out that the angle is $\tan^{-1}\left(\frac{8}{6}\right) = 53.1^\circ$.</p> 	<p>Berp eats the leaves on the tree and lives happily ever after in the Amazon.</p> <p><i>The End</i></p> <p><i>...that's all folks...</i></p>
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