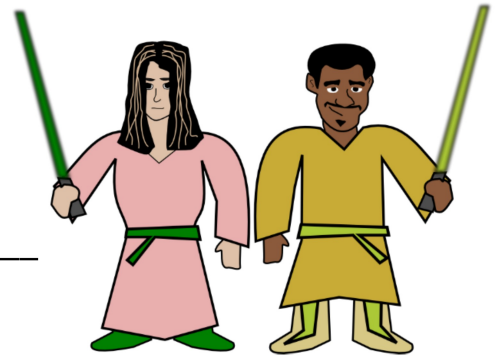


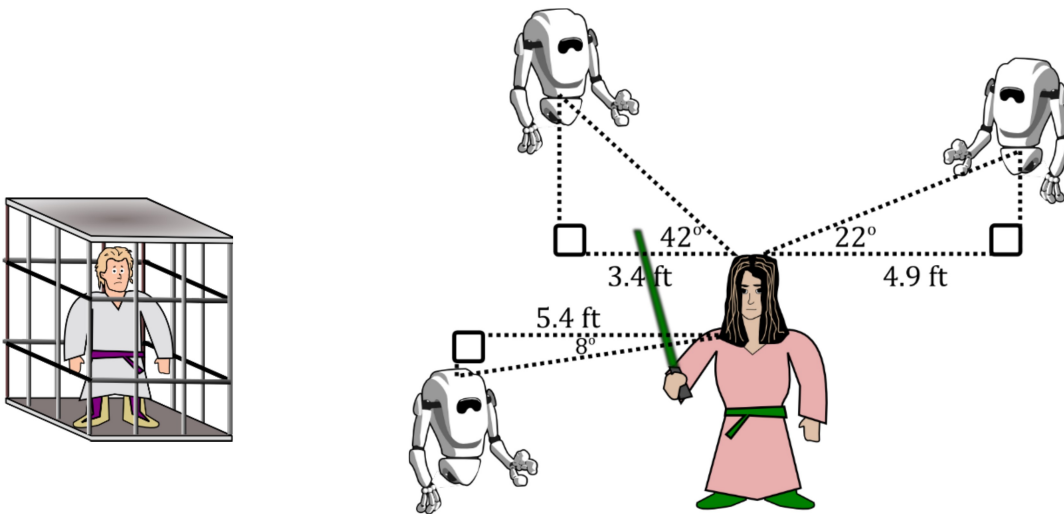
USE THE FORCE



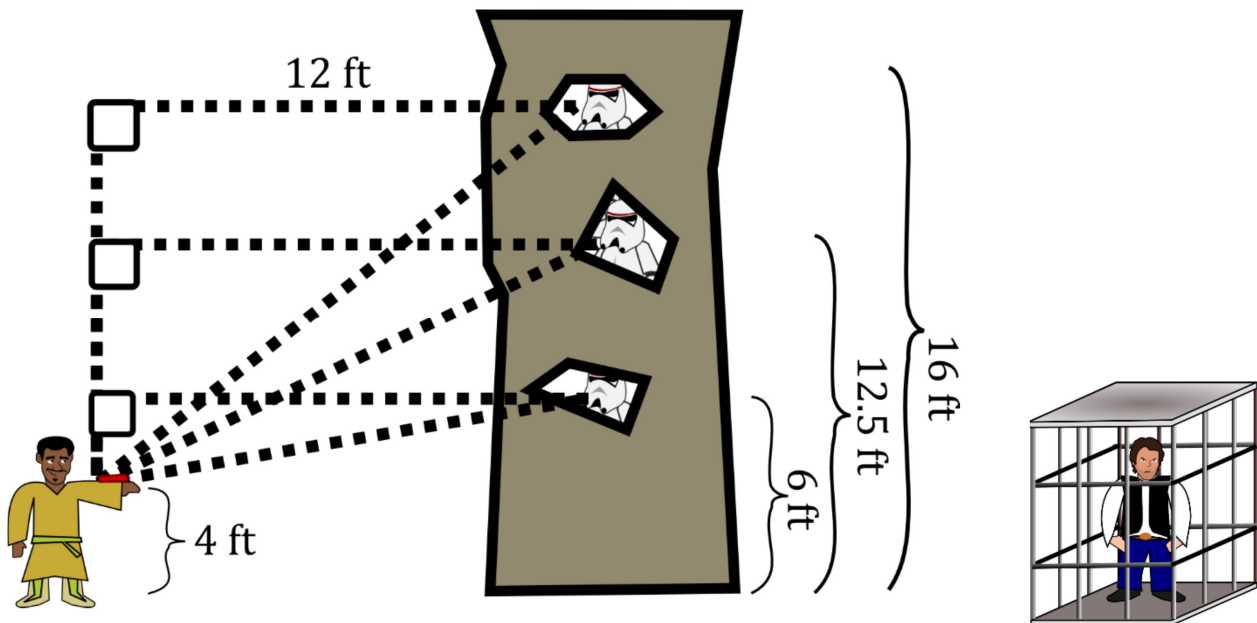
Name _____ Date _____

There is a disturbance in the force. The planet Alderaan is under attack by the Empire. Meanwhile all of the Jedis have been captured and are under the close watch of the Troopers. You must use your geometric Jedi powers to solve these complex problems, defeat the enemy and rescue the Jedis. On your way, you must find the Millennium Falcon to race across the galaxy!

1. What is the minimum length the lightsaber will need to be to reach the three droids? If you can figure this out, you will rescue Luke.

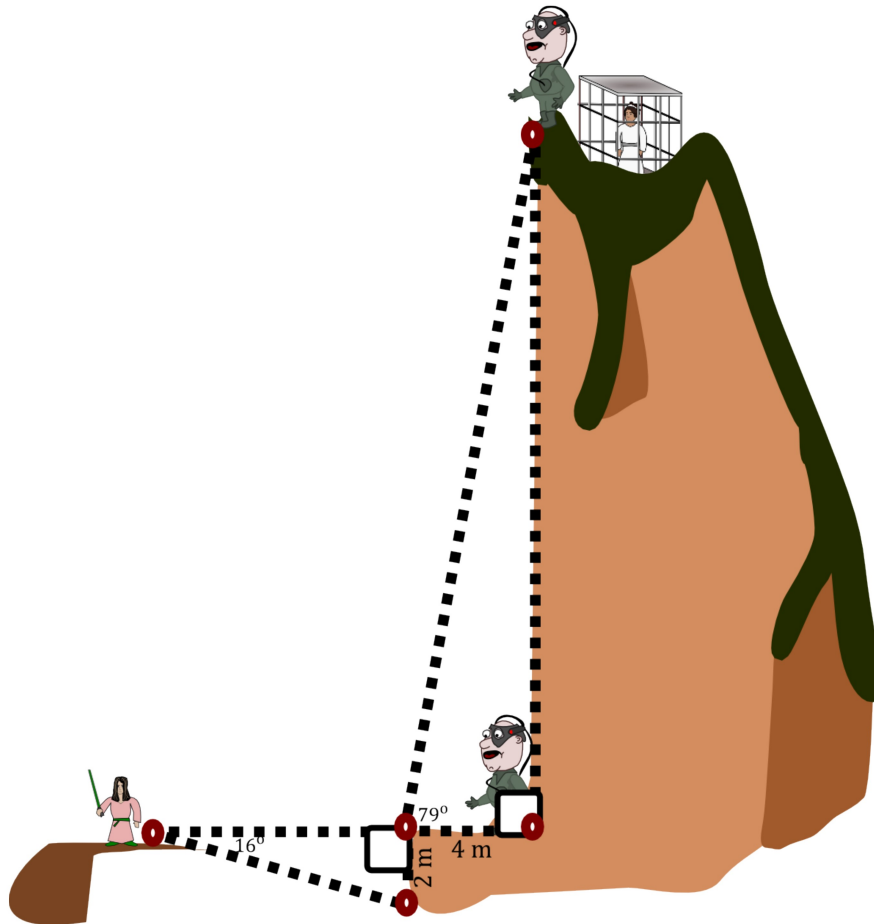


2. At what angles must the Jedi Trainee fire the wrist rocket to take out the Storm Troopers? If you can figure this out, you will rescue Han.

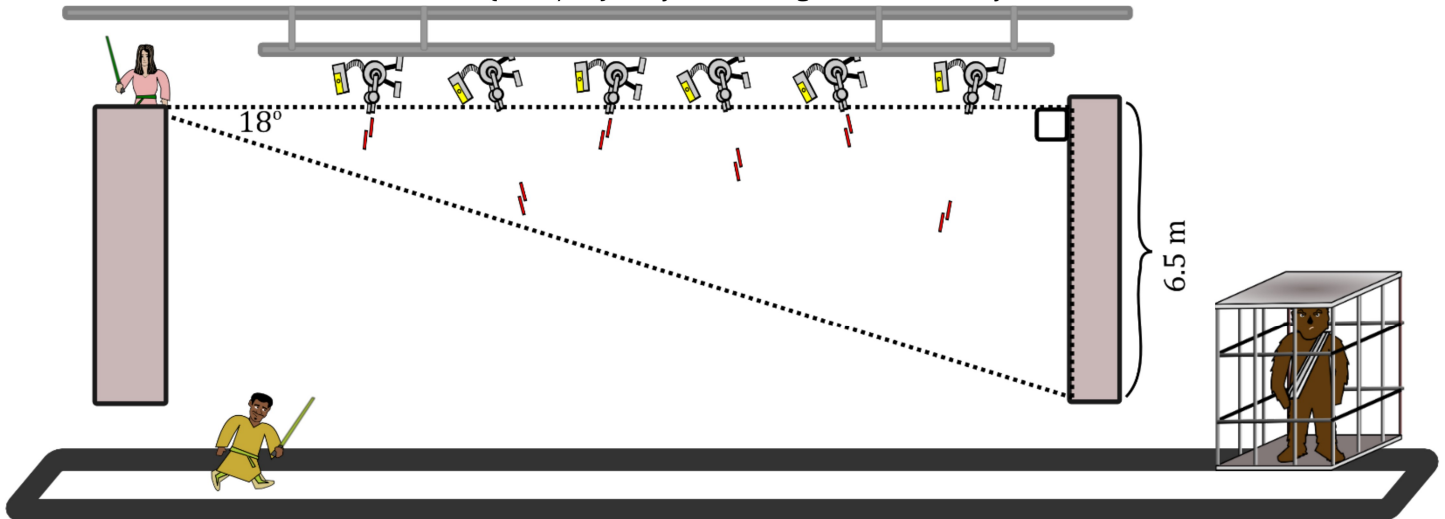


MAY THE FORCE BE WITH YOU

3. How far and how high must a Jedi Trainee jump in order to eliminate the two cyborgs? If you can do this, you will rescue Leia.



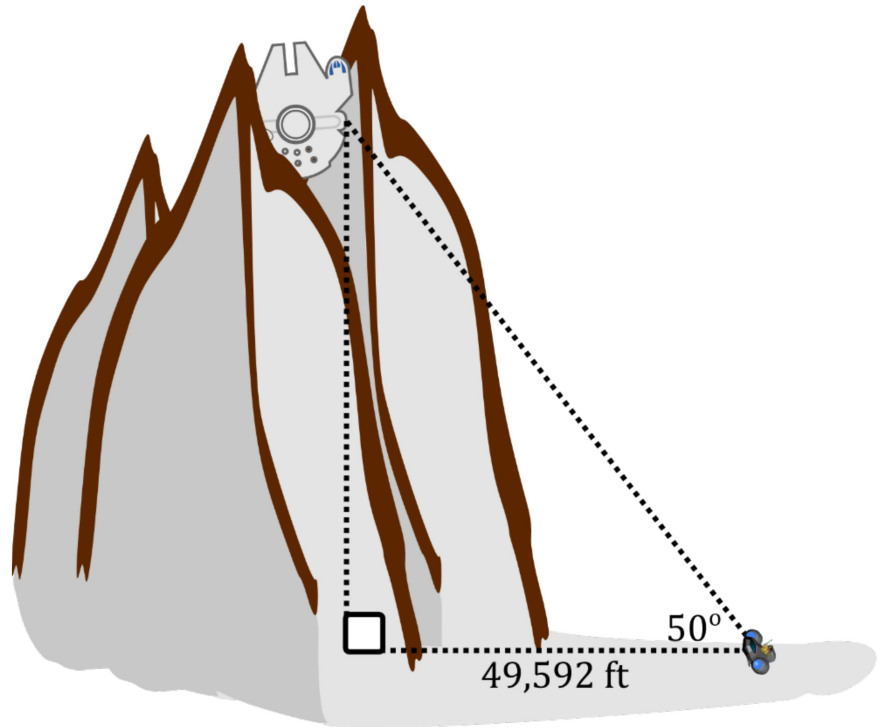
4. A Jedi Trainee must run past the army of battle droids in less than 2.5 seconds. How fast must the Jedi Trainee run (in m/s)? If you can figure this out, you will rescue Chewbacca.



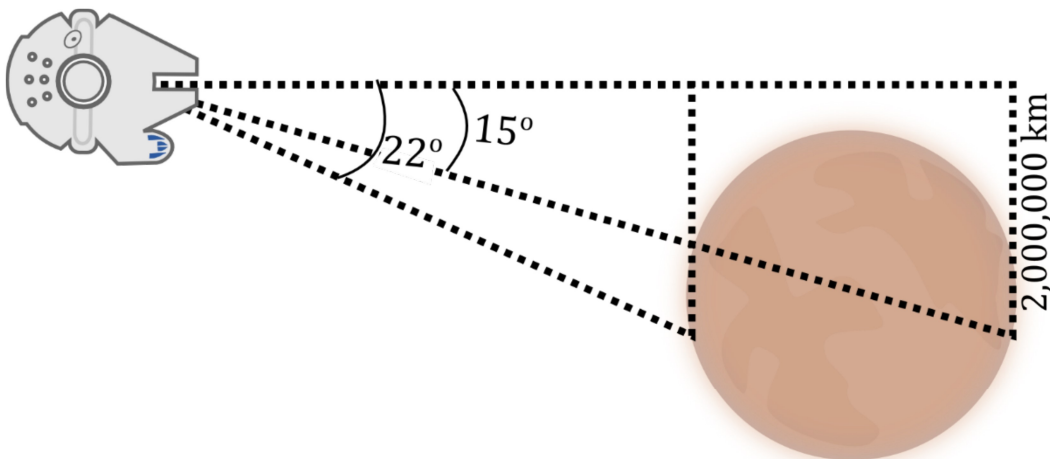
The Empire is leaving Alderaan and is fleeing to another planet to develop another plan with their leader. The Jedi Trainees must go after them.

5. In training, Yoda mentioned that a special ship was hidden atop the Mount of Sorrow.

The Jedi Trainees are piloting a hoverpod at a speed of 1,500 ft/sec to go directly to the top of the Mount of Sorrow. If you are traveling at a 50° angle, how long will it take for you to reach the top of the Mount of Sorrow? If you can do this, you will retrieve the Millennium Falcon.



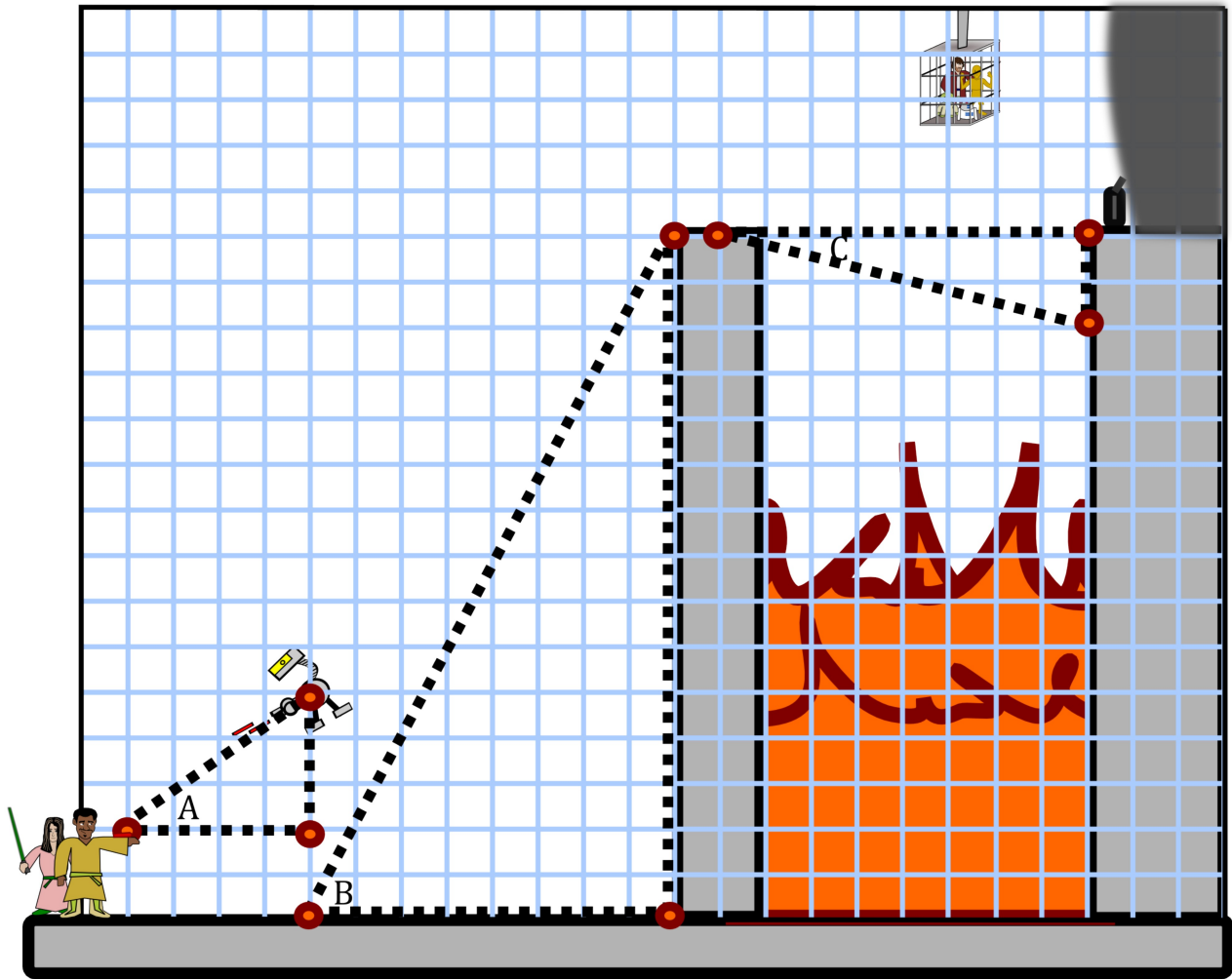
6. The Empire is regrouping on the planet Tatooine. The angle of depression to the near side of the planet is 22° and the angle of depression to the far side is 15° . If the Millennium Falcon is 2,000,000 km above Tatooine, approximately how wide is the planet? If you can figure this out, you will land on Tatooine.



You have discovered the base of the empire. Obi Wan, Yoda, C-3PO and R2-D2 are trapped inside!

7. Obi Wan, Yoda, C-3PO and R2-D2 hang perilously above a pit of death. In order to reach them you must eliminate a droid bot and make a high vertical jump and a long horizontal jump to reach them. Keep track of your unknowns along the way.

1 unit on the coordinate grid is equal to 2 feet



A = _____ B = _____ C = _____
Round to the nearest degree

But just as the Jedi Trainees use the lever to save their friends –
 – from the shadows emerges the one, the only, **Darth Vader**.
 The person with the longest lightsaber wins the duel. You better hope that you solved the first three problems correctly or else you will be incinerated and the Empire will take over the galaxy. If you win, you will save your friends.

