**You have 60 minutes to complete the following 30 multiple-choice questions. Choices A through D are answer choices for every problem. Choice e. stands for “none of these answers,” or NOTA. Scoring is as follows: 5 points for a correct answer, 1 point if left unanswered, and 0 points for an incorrect response. Units are assumed. Diagrams are not drawn to scale.**

1. Rocket Raccoon is a bounty hunter currently chasing the Ravagers, a group of space pirates. Being the excellent marksman that he is, he easily captures two space pirates per minute. If Rocket Raccoon captures all of the Ravagers in 31 minutes, how many space pirates were there in total?
2. **59 b. 60 c. 61 d. 62 e. NOTA**

1. Groot is known to have many forms, able to regenerate from a small sprig and suddenly sprout to a tree. If he starts out at 16 grams and suddenly grows to 220 lbs, what is his new mass in grams? (1000g is approx. 2.2 lbs)
2. **6250 grams b. 100,000 grams c. 6250 lbs d. 100,000 lbs e. NOTA**

1. Groot’s species, as a result of their stiff, tree-like bodies, can only say one sentence, “I am Groot.” What percentage of the sentence is vowels, not including spaces?
2. **37.5% b. 40% c. 50% d. 62.5% e. NOTA**

1. In the Star Wars franchise, Yoda has a different number of toes on each foot depending on what movie you’re watching. In the Phantom Menace, Yoda has 3 toes. In Empire Strikes Back, Return of the Jedi, and Revenge of the Sith, Yoda has 4 toes. What is the average number of toes Yoda has in these four movies?
2. **3.5 b. 3.75 c. 4 d. 15 e. NOTA**

1. Luke Skywalker needs to take a walk after learning of his parentage. He walks in a circular path that has a diameter of 4 meters. If he only walks this circle once, what is the total distance he walked? (Hint: the formula for the circumference of a circle is C = 2πr, where r is the radius of the circle)
2. **16π b. 4π c. 2π d. 8π e. NOTA**
3. Princess Leia has hidden the plans for the Death Star in the droid R2-D2 and sent it to find Obi-Wan Kenobi. But for Obi-Wan to access the plans, he must correctly answer this math problem: Find the sum of and . If Obi-Wan manages to get the plans, what is his correct answer?
4. **b. c. d. e. NOTA**

1. Quick! Captain Kirk must get past Khan to help save his spaceship, the starship USS Enterprise. In order to do this he must find the smallest double digit prime number and shoot Khan that many times. How many times must Captain Kirk shoot Khan?
2. **11 b. 13 c. 17 d. 19 e. NOTA**
3. Brandon is on a spaceship flying toward the destination of Brandon’s dreams - the Apple Planet. Located in the opposite side of the Milky Way, the planet greatly resembles Mars, which was why Brandon recruited the help of “Martian” expert Matt Damon to travel with him. There, they decide to have an apple eating contest. If the number of apples Brandon ate equals the sum of the first 5 even whole numbers, and the number of apples Matt ate was the sum of the first 5 odd whole numbers, who ate more apples and by how many?
4. **Brandon, 5 b. Brandon, 10 c. Matt, 5 d. Matt, 10 e. NOTA**
5. Joanna was too lazy to get up and grab the chocolate bar she wanted, so she used the force to help her. In order to use the force, she must simplify this expression:

4 ( 6 + 10 ) - 23 + 6 ÷ 3. What answer should she get if she wants to use the force?

1. **58 b. 28 c. 74 d. 24 e. NOTA**
2. Brandon was left stranded on the Apple Planet after Matt Damon returned to Earth without him (how ironic), so he was left to fend for himself. On the planet, the currency is laid out as follows: 2 goobles are worth 3 gabbles, 6 gabbles are worth 12 gubbles, and 3 gubbles are worth 5 apples. If Brandon has 12 goobles, how many apples is he able to buy?

1. **18 b. 39 c. 60 d. 65 e. NOTA**

For questions 11-13, please refer to the following information: Jessica has always been very fond of her prized possession, her favorite piece of rectangular alien cardboard. She bought it from Brandon on the Apple Planet so he could afford more apples, and it has the special quality that it is able to change its length and width to whatever the owner wants.

1. For which of the following dimensions (length x width), would the cardboard be the biggest in terms of area? All measurements are in inches.
2. **5 x 5 b. 4 x 6 c. 13 x 2 d. 24 x 1 e. NOTA**
3. If Jessica set the length and width so that the length of the rectangle was half a foot and the width was 3 inches, what is the perimeter of the cardboard?
4. **4 inches b. 8 inches c. 16 inches d. 20 inches e. NOTA**
5. Jessica’s favorite alien cardboard is a rectangle that measures 8 inches in length by 5 inches in width. Jessica’s arch nemesis, Tessica, decides to sabotage Jessica’s cardboard by cutting 1 inch by 1 inch squares into each corner of the rectangle. Jessica, being an optimistic person, decided to just fold the sides of the newly formed shape up to make a box, now her favorite box. What is the volume inside of Jessica’s favorite box in cubic inches?
6. **18 b. 36 c. 40 d. You can’t make a box out of that e. NOTA**
7. Joanna lands on a very peculiar planet indeed. On the planet, everyone must wear shirts and pants that are the same color. Joanna really wants to fit in on the planet, so she decides that she will change her clothes to match everyone else. Everyone around her is wearing black, so she needs a black shirt and a black pair of pants. In her bag she has 5 shirts and one of them is black. What is the probability that she chooses a black shirt?
8. ** b.  c.  d.  e. NOTA**
9. Oh no! Victoria is kidnapped while on the planet Zudlog and can only escape if she finds the right key to the cell. There are 3 triangular keys on the wall and she only has one chance to choose a key. There is one scalene, one isosceles, and one equilateral. Victoria is given one hint: the right key can never have a right angle. Which key is the correct one?
10. **scalene b. isosceles c. equilateral d. none; Victoria is doomed e. NOTA**
11. While exploring a canyon on planet Uwred, Jason trips and falls, breaking his glasses. Unfortunately, Jason has terrible eyesight. Without them, he can only see up to 5 feet before things start to become blurry. What is the minimum distance that Jason will miss seeing a giant boulder in front of him in centimeters? (1 inch= 2.54 cm)
12. **12.70 cm b. 60.00 cm c. 152.40 cm d. 1270.00 cm e. NOTA**
13. Brandon holds the universal record for going on the most galactic adventures out of everyone in space. Coincidentally, this number is equal to the number of prime numbers that are less than 50. How many exciting galactic adventures has Brandon been on?
14. **13 b. 14 c. 15 d. 16 e. NOTA**
15. Next to the Apple Planet is the Rambutan Planet, which has many spikes on the surface of it, conveniently shaped like triangles to make writing this question easier. If all of the spikes on the planet are exactly the same shape and dimensions, with heights of 5 ft. and bases of length 6 ft, what is the area of one of the spikes in square inches?
16. **15 b. 30 c. 2160 d. 4320 e. NOTA**
17. It is estimated that the Millennium Falcon would cost approximately $1,320,132,000 which is a lot of money. Neha wants to buy a spaceship that is around one sixth of the price, what is the cost of the spaceship that she wants to buy?
18. **220,022,000 b. 22,022,000 c. 22,002,200 d. 2,002,200 e. NOTA**
19. Meghana decides that she wants to drive Neha’s spaceship around for a little bit, but then she accidentally crashes it. Luckily Neha, knowing this would happen at some point, was prepared for this. Neha planned to get another spaceship, but this new one is ¼ the price of the Millennium Falcon (see question #19). Since Meghana was the one who crashed the old spaceship, she has to pay for the new one. How much does she have to pay?
20. **3,300,033,000 b. 330,033,000 c. 33,033,000 d. 33,003,300 e. NOTA**
21. While orbiting Earth, Jamie suddenly receives an anonymous message from somewhere in the universe. A simple expression flashes on the screen when she opens the message: 6÷2(1+2). What is the value to this mysterious expression when simplified?
22. **1 b. 5 c. 9 d. 12 e. NOTA**
23. When Brandon was flying through space, he comes upon the planet Tatooine. Knowing that Jabba the Hutt lives there, Brandon brings him a big plate of his favorite food - apples. However, these are not just any apples. These are special apples that double in the area they cover every day! If it takes 24 days for the apples to cover the whole planet, and none of the apples are eaten during this period, how many days did it take for half the planet to be covered by the apples?
24. **2 b. 6 c. 12 d. 23 e. NOTA**
25. As Captain Kirk is flying the USS Enterprise, there is a little adventurous alien snake named Leon who wishes to go on his own adventures on the ship. However, Leon is trapped in the bottom of a 24 foot long pipe. Before he goes on his adventures, Leon must first climb out of the pipe. If he climbs 5 feet during the day, but then falls 4 feet down at night, how long does it take before Leon climbs out and goes on his space journey?
26. **5 Days b. 6 Days c. 20 Days d. 24 Days e. NOTA**
27. Jessica decides to take her favorite cardboard box with her on a journey to Mars. However, to protect herself from the scary Martians, Jessica decides to buy herself a space taser and space pepper spray. If the taser costs one hundred dollars more than the pepper spray, and the both of them together costs one hundred and ten dollars, how much does the pepper spray cost?
28. **$5 b. $10 c. $100 d. $110 e. NOTA**
29. C-3PO claims to be fluent in over six million forms of communication. To test this claim, Han Solo questions him on an extremely rare language only spoken by the 23 survivors of a destroyed planet. In the language Quavelian, there are only 15 letters, each corresponding to every other even whole number starting with zero. If the letter A corresponds to 0, B to 4, C to 8, and so on…… What number does the 13th letter in the Quavelian alphabet correspond to?
30. **22 b. 24 c. 46 d. 48 e. NOTA**
31. Spock needs your help! He doesn’t understand this question that Uhura gave him, and he needs it to safely fly the starship USS Enterprise to safety. The question he needs to solve is:

323 + [ 7 (10473 + 368 ) - 5 x 25] x 0

Please solve the question and save him quickly!

1. **76050 b. 323 c. 0 d. 527 e. NOTA**
2. Yoda really likes Fibonacci numbers. Fibonacci numbers are a sequence of numbers where each number is the sum of the two terms before it. For example: 1, 1, 2, 3, 5, 8, 13…. What is the 10th Fibonacci number?
3. **55 b. 34 c. 89 d. 144 e. NOTA**
4. Peter Quill is trying to save the galaxy (again), and he flies around in his spaceship for 300000000000 days. What is 300000000000 in scientific notation?
5. **3 x 1011  b. 3 x 1010 c. 30 x 1010 d. 30 x 1011 e. NOTA**
6. Brandon is finally going home to Earth after all his adventures in space. On his way back, he realizes that he doesn’t remember which galaxy is the Milky Way! There are five galaxies in a line in front of him. He knows that the Milky Way is always right between Andromeda and the Black Eye, Bode’s Galaxy is three galaxies away from Andromeda and not beside Whirlpool, and that the Whirlpool Galaxy is either first or last in the line of galaxies. Assuming the correct order of the galaxies goes from left to right, what number galaxy is the Milky Way?
7. **the first b. the second c. the third d. the fourth e. NOTA**
8. Which actor played as the male lead (Luke Skywalker) in the 1977 release of *Star Wars Episode IV : A New Hope*?

**a. Harrison Ford b. Mark Hamill c. Peter Mayhew**

**d. David Prowse e. NOTA**