**Choose the letter of the correct answer. In all cases, E) NOTA means “none of these answers”.**

**Bolin, Mako, and Nitharsan MelangaCoco Sivakanthan just got their braces off! Now they can enjoy delicious chili. To celebrate, they go to the fair to eat at Charlie’s Chili Hut. This fine establishment serves chili with a variety of strange other foods. Use this information for questions 1-4.**  
  
1) Bolin and Mako decide that they want chili covered strawberries. Bolin orders 12 strawberries and Mako orders 98.  What is the product of 12 and 98?  
**A) 8.16 B) 110 C) 1149 D) 1176 E) NOTA**  
2) Nitharsan MelangaCoco Sivakanthan orders 35 servings of chili cheese fries. He gives away 15.75 servings to Bolin. What is 15.75 less than 35?  
**A) 50.75        B) 19.25                    C) -19.25                   D) -50.75 E) NOTA**  
3) Mako orders 2 dozen chili covered Ragons and Nitharsan MelangaCoco Sivakanthan orders half a dozen. Mako ordered \_\_?\_\_ times as many Ragons as Nitharsan MelangaCoco Sivakanthan. What number is \_\_\_?\_\_?  
**A)            B)                      C) 2 D) 4 E) NOTA**  
4) Bolin and Nitharsan MelangaCoco Sivakanthan like really hot food, maybe because they’re firebenders. They decide to order the flaming chili sundae. Nitharsan MelangaCoco Sivakanthan’s sundae weighs pound, and Mako’s weighs 9 pounds. What do the two sundaes weigh together (in pounds)?  
**A) B) 3                          C)                     D) E) NOTA**  
  
**Jake, Adi, Sophie, Jerfay, and Bri are going to the fair. They haven’t eaten anything in 5 days and they are SUPER hungry! They are going to the fair to satisfy their  
appetite and their first stop is at Freddie’s Fatty Deep Fried Factory.  Use this information for questions 5-9.**  
  
5)  Jake wants to buy 4½ deep fried creampuffs on a stick. Assuming they’re $2.40 each, how much money will Jake spend on creampuffs? Fractional parts of creampuffs can be bought at a proportional price as whole creampuffs.  
**A) $10.02 B) $10.18 C) $10.20 D) $10.56 E) NOTA**  
6) Adi desires deep fried low fat brownies. The brownies were cut into triangles with angles of 42˚, 74˚, and an unknown angle measure. What is the value of the unknown measure?  
**A) 54˚ B) 64˚ C) 72˚ D) 74˚ E) NOTA**

7) Sophie wants to eat deep fried ice cream cheeseburgers, but she’s on a very strict diet. She can only eat a prime number of cheeseburgers. Which of the following is a possible number of cheeseburgers Sophie can eat?  
**A) 0 B) 1                       C) 89 D) 91 E) NOTA**  
  
8) Bri and Jerfay want deep fried butterballs but don’t want all of the calories, so they decide to share. If the butterballs cost $1.86 each and both Bri and Jerfay pay the same amount, how much does each person end up paying for 1 butterball?  
**A) $3.72 B) $0.93 C) $0.88 D) $0.83 E) NOTA**        
             
9) Sophie feels bad about eating the deep fried ice cream, and only eats of the ice cream. What is this number as a percent?  
**A) 98% B) 94%     C) 0.96% D) 0.94% E) NOTA**  
  
**After eating to their heart’s displeasure, but stomach’s content, they decide to travel to Haoqing’s Hamburger Shack. At this shack they’ll find the world’s most unique burgers. Use this information for questions 10-13.**  
  
10) Haoqing decides the price of the burgers based on how much they weigh. He isn’t sure how much the ice cream burger weighs. If the whole burger without ice cream weighs of a pound and the ice cream that he’ll add to the burger weighs of a pound, how much does the entire burger weigh in simplest form.?

**A) pound B) pound C) 1 pound D) pound E) NOTA**  
  
11) Jake has a burger. Jeffery has of a burger. How much more than a whole burger do Jake and Jeffery have together?  
**A) B)                C) D) E) NOTA**  
  
12) Adi wants to buy the donut burger. This is a burger that has donuts instead of buns. If the donut hole has a diameter of 8 cm, what’s the area of the circle made by the hole?  
**A) 2π B) 4π C) 16π D) 32π E) NOTA**  
  
13) Sophie thinks burgers are too unhealthy and decides to stop by Delicious Daliah’s Vegetable Patch. If one stalk costs $6.00 and Sophie buys 13 ¾ stalks, how much does she pay? Fractional parts of stalks can be bought at a proportional price as whole stalks.  
**A) $92.80 B) $92.50 C) $82.50 D) $78.00         E) NOTA**

14)   One of the specialties at the fair is the Burger Shake, a burger that has been blended and added to a regular vanilla milk shake. The concoction is burger, vanilla extract, and milk. Sophie decides this little shake is too potent for her, and mixes it equally with water (the resulting solution is half water, half Burger Shake). How much of the resulting concoction is vanilla drink?  
**A) B) C) D) E) NOTA**  
  
15) Amanda buys 4 bags of popcorn with an average of 57 pieces each. Bailey buys 3 bags of popcorn with an average of 54 pieces each. If Bailey wants to have the same average as Amanda, how many pieces of popcorn needs to be in the next bag of popcorn she buys?  
**A) 68             B) 66                         C) 57                         D) 54 E) NOTA**  
  
16) Alex thinks that the people selling popcorn are cheating their customers out of their money. He tests 5 bags of popcorn and finds that they have 62, 52, 36, 46, and 44 pieces of popcorn each. What is the mean number of popcorn pieces in these 5 bags of popcorn?  
**A) 40            B) 46                         C) 49                         D) 51 E) NOTA**  
  
17) Kevin gets a free churro if he can solve this problem. Let the operation be A≬B be defined as -1. Evaluate 12≬4.  
**A) –           B) 2                       C)                       D) 7 E) NOTA**  
  
18) Bri bought a turkey leg for $6.76, including tax. If she paid with a 20 dollar bill, how much change does she receive?

**A) $15.34 B) $14.24 C) $13.34                   D) $13.24 E) NOTA**  
19) One serving of spaghetti on a stick costs $5.50; meatballs are an additional $0.66 cents each. If Asami buys two servings of spaghetti and 3 meatballs, how much does it cost?

**A) $17.82 B) $12.98 C) $12.86                  D) $11.98 E) NOTA**

20) Mitchell wants to play a prank on Jackie by deep frying her watermelon. If it costs 80 cents to deep fry something for 4 minutes, and Mitchell plans on deep frying her watermelon for 6 minutes, how much will it cost Mitchell? Assume proportional pricing.

**A) $0.40            B) $1.00                       C) $1.20                       D) $1.40 E) NOTA**

21) Cici went to the soft drink machine and filled 50% of her cup with Sprite. Izzy thought it would be funny to fill it with Coca-Cola so that only 25% of the cup would be empty. What percent of this mix would be Coca-Cola (to the nearest percent)?  
**A) 25%              B) 33%                     C) 50%                 D) 75% E) NOTA**  
  
22) Leeon wants funnel cake and corn dogs but he has to have them in a very specific proportion. He ends up eating 56 funnel cakes and 128 corn dogs. What is the ratio of funnel cakes to corn dogs as a fraction in **simplest form**?

**A) B)              C)                D) E) NOTA**  
  
23) Mr. Brownie owns the world’s longest churro. If Mr. Brownie’s churro is 62 ⅔ inches and an average churro is 7⅓ inches, how many times longer is Mr. Brownie’s churro than an average churro?

**A)        B)                    C)                    D) E) NOTA**  
  
24) Korra stopped by the fair to get energy to fight Amon. She decided to buy a deep fried candy bar. The deep fried bar left a rectangular oil stain on her napkin. If the oil stain has  
a length of 8 inches and a width of 0.75 inches, what’s the area of the oil stain in square inches?  
**A) 5              B) 6                          C) 8                          D) 17.5 E) NOTA**  
  
25) Joyce, Cici, Grace, and Bri were all bought the same amount of cotton candy. If Joyce ate of hers, Cici ate of hers, Grace ate of hers, and Bri ate of hers, who ate the most cotton candy?  
**A) Bri      B) Cici                        C) Grace                     D) Joyce E) NOTA**  
  
26) Jeffery wants to buy a hot beef sundae, but he only has of a dollar. The hot beef sundae is $1.70 with tax. How much money does Izzy need to lend Jeffery so he can buy the hot beef sundae?  
**A) $1.61       B) $1.45                    C) $1.34                    D) $1.24 E) NOTA**

27) Sophie and Jeffery are playing a game. Sophie says she’ll eat a chocolate covered scorpion if he can guess the number she’s thinking of. Sophie’s number is an integer between 17 and 25, not inclusive. It is not a composite number and is 1 away from 20. What number is Sophie thinking of?  
**A) 19             B) 21                         C) 22                         D) 23 E) NOTA**

28) Jonathan stops by the cotton candy shop and buys the rainbow combo! The color distribution is 10% red, 17% orange, 9% yellow, 12% green, 24% blue, 14% indigo, and X% purple. What percentage is purple?  
**A) 24%              B) 19%                  C) 15%                    D) 9% E) NOTA**

29) The rigged change machine at the fair eats (i.e. doesn’t give back) enough money so that the lowest denomination it spits out is dollar bills. For example, if Izzy inserts $23.51, it will only spit out $23. And if $31.97 is inserted, it spits out $31. Izzy inserts some fixed amount of money 8 times, and in the end he has 9 more dollars than 4 times the amount he inserted each time. If he inserted this amount 16 times, how much money would that give him?  
**A) $16 B) $48 C) $72 D) $128 E) NOTA**  
  
30) Cici doesn’t know how to properly cut a pizza, so she cuts a pizza of radius *3r* in two slices. These two cuts are made by cutting concentric circles of radii *r* and *2r* centered at the center of the pizza. Thus, the pizza has been divided into three pieces : a circle and two rings. What fraction of the pizza is contained between the circle of radius *r* and the circle of radius *2r*?

**A) B) C) D) E) NOTA**