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

1. The earliest dinosaurs lived around 245 million years ago during the Mesozoic era, which lasted approximately 200 million years. A meteor killed them all roughly 70 million years ago! We currently know about 700 of the extinct dinosaur species. What is ?

**A) -186.5 B) C) 55 D) 75 E) NOTA**

2. Linsey the Liopleurodon has been swimming underwater for 87.65 minutes. If the longest she can hold his breath is 133.47 minutes, how much longer can she stay underwater before he has to resurface?

**A) 55.82 minutes**  **B) 46.82 minutes**  **C) 46.02 minutes**  **D) 45.82 minutes**  **E) NOTA**

3. A mama Oviraptorosaur arranges her eggs so that they sit in a triangle with a height of 4 feet and base of 6 ft. What is the area of the triangle (in square feet)?

**A) 2**  **B) 12**  **C) 10**  **D) 6**  **E) NOTA**

4. Four Pteranodons, named Kili, Kiki, Kiti, and Kimi, take to the sky. They compete to see who can fly the longest. Kili flies for of an hour, Kiki flies for of an hour, Kiti flies for of an hour, and Kimi flies for 0.125 hours. The dinosaur that wins gets some kiwi for dinner. Which Pteranodon is fed?

**A) Kiki**  **B) Kili**  **C) Kimi**  **D) Kiwi**  **E) NOTA**

5. Tyrannosaurus Rex have many teeth of varying sizes. One curious T-rex decides to measure the length of some of her teeth. Here are her measurements, in inches:

8, 12, 7, 8, 6, 9, 9, 7, 11, 10, 9

Curious to know more about herself, help this T-rex find the product of the range and median of these measurements?

**A) 36 B) 45 C) 60 D) 54 E) NOTA**

6. A Troodon captures a bird while hunting. Just as he is about to eat the bird, the bird cried, “Wait! If you want to eat me, you have to solve this problem first; What is as a mixed number?” As one of the smartest dinosaurs, the Troodon solved the problem instantly! What answer did the Troodon get?

**A) 5 B) 5 C) 6 D) 6 E) NOTA**

7. A group of Spinosauri are hunting for some fish. They take to a river, knowing that a fish will swim by every 25 minutes. The Spinosauri are superb hunters and every time a fish swims by, they will catch it. However, sometimes the Spinosauri are slacking off so they miss every other fish that swims by. If they catch their first fish at 3:00 P.M., when will they catch their fourth fish?

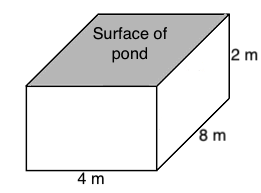
**A) 4:40 PM**  **B) 5:30 PM**  **C) 4:15 PM**  **D) 5:05 PM**  **E) NOTA**

8. A gentle Brachiosaurus was inspired by the Garden of Eden and decided to plant a garden. He planted 18 magnolia seeds, and of them sprouted. Of the seeds that sprouted, are white and the rest are pink. The Brachiosaurus learns that the Garden of Eden had 25 pink flowers. Thus, wanting to follow his inspiration, he finds some Bergenia seeds, which are known to sprout pink seeds of the time. How many Bergenia seeds should he plant to have 25 pink flowers in total?

**A) 18 B) 15 C) 10 D) 20 E) NOTA**

**Use the following information to solve the next two problems:**

There is a pond in the shape of a rectangular prism with the following dimensions:



9. A small Parvicursor eats the water bugs that live on the surface of the pond (the bugs hide on lilies). She is interested in how many bugs are on the pond. If for every square meter of the surface of the pond there are two lilies, and for every lily there hide five water bugs, how many bugs in total are on the pond? There are no other bugs on the pond except for those on lilies.

**A) 80** **B) 160** **C) 320**  **D) 640** **E) NOTA**

10. The Parvicursor wants to venture around the entire pond. Assuming that she is able to explore 4 m3 of the pond every day, how many days will it take for her to see the entire pond given that she can reach every part of it?

**A) 12**  **B) 16**  **C) 64**  **D) 8**  **E) NOTA**

11. Allosauruses are pack dinosaurs. Alex, the Allosaurus, is finding a new pack to join because his old pack ostracized him for eating too much. However, he is quite selective. He thinks that the ideal number of Allosauruses in a pack should be any multiple of six after he joins it. Following this rule, which pack should Alex join? The answer choices below are the number of Allosauruses in a pack *before* Alex joins it.

**A) 98** **B) 753**  **C) 1248**  **D) 2717**  **E) NOTA**

12. A Stenopterygius, which is a kind of prehistoric dolphin, leaps out of the water once, pauses, then leaps two times in a row, pauses, then leaps three times in a row, and so on, until he leaps sixty times in a row. Counting the number of leaps he made, he congratulates himself on breaking his own record of total number of leaps. However, while great at leaping, the Stenopterygius has rather poor memory and forgets all the leaps it made before thirty in a row. How many total leaps did this Stenopterygius remember it made?

**A) 1365**  **B) 435**  **C) 1830**  **D) 1395**  **E) NOTA**

13. Vera the Therapsid is trying to fall asleep. To her annoyance however, she is sleeping in a noisy marsh with many nocturnal insects. She hears one *croak*, eleven *chirp*s, and one hundred and eleven *buzz*es. The distracting noises prevent her from falling asleep, so she thinks about the following math problem: Which of the following statements are true?

I. 1 is neither prime nor composite.

II. 11 in Roman numerals is XI.

III. 111 is prime.

**A) I only B) II and III**  **C) I and II**  **D) II only**  **E) NOTA**

14. Sandhya the Stegosaurus swallows small pebbles to aid in digestion of tough leaves and fibers. One such small pebble is a perfect sphere with a diameter of 1 cm. She needs to swallow four of these pebbles to help digest one leaf. What is the volume of the pebbles she swallows to digest a salad made up of six leaves? (Hint: volume of a sphere = )

**A)cm3 B) cm3  C) cm3 D) cm3 E) NOTA**

15. Andrew the Aucusaurus spots a nest of 32 eggs. Because he is sneaky, he plans to steal some eggs for breakfast. The number of eggs he wants to take is equal to the sum of “the greatest common factor between 42 and 98” and “the sixth smallest prime number.” Exactly how many eggs does Andrew want to steal?

**A) 32**  **B) 20**  **C) 18**  **D) 12**  **E) NOTA**

16. Three cranky Tarbosauruses get in a fight. They start snapping at each other to show who’s boss. The first Tarbosaurus snaps every 2 minutes, the second Tarbosaurus snaps every 50 seconds, and the third Tarbosaurus snaps every 3 minutes and 45 seconds. If they all started snapping at each other at the same time, how much time will pass before they snap at each other in unison again?

**A) 30 minutes B) 15 minutes C) 3 minutes 45 seconds D) 50 seconds E) NOTA**

17. Chris the baby Maiasaura hatches from his egg but can’t find his mother in the nest. He sees a note in the nest left by his mother that says, “If you need me, walk 5 meters north until you see a tree stump, then walk 4 meters east, then walk 2 meters south, and you will find me there.” How far is the mama Maiasuara from the nest?

**A) 3 m B) 5 m C) 6 m D) 7 m E) NOTA**

18. Uh oh! Brighten the Edmontonia dinosaur accidentally wandered far away from his house. In order to return home, Brighten must climb 535 feet up a tall mountain. If he climbs up 45 feet during the day, but slides down 10 feet while he is sleeping at night, on which day will he reach the top of the mountain? (Assume that Brighten starts climbing on the first day)

**A) 16th dayB) 15th day**  **C) 14th day D) 13th day E) NOTA**

19. The Stegosaurus is known as one of the least intelligent dinosaurs, having a “brain the size of a walnut.” If a Stegosaurus has a mass of 3100 kg, and its brain is only 0.002% of its body mass, what is the mass of the Stegosaurus’s brain?

**A) 0.062 g**  **B) 0.62 g C) 6.2 g D) 62 g E) NOTA**

20. Bryan, a nocturnal velociraptor, loves to watch the meteors at night. He loves the meteors so much that he decides to count how many he sees each night. On the first night, he sees 2 meteors, the second night, 3 meteors, then the next night 5 meteors, then 8 meteors, then 13 meteors, and on the sixth night he sees 21 meteors. If this pattern continues, how many meteors can Bryan expect to see on the eighth night?

**A) 55** **B) 47** **C) 44**  **D) 34**  **E) NOTA**

21. Arib the Argentinosaurus is one of the longest dinosaurs ever discovered, measuring up to 110 feet. The smallest dinosaur ever found, the Oculudentavis, is only 0.5 inches in length. How many times longer is Arib than the Oculudentavis? (Hint: 1 feet = 12 inches)

**A) 18.3 B) 220 C) 660 D) 2640 E) NOTA**

22.Three Brachiosauruses are traveling together, migrating to the balmy south for the winter. The average height of these three Brachiosauruses is 29 feet. Another migrating Brachiosaur then joins the group, making the group’s average height 30 feet. What is the height of this newcomer?

**A) 30 feet**  **B) 33 feet**  **C) 34 feet**  **D) 37 feet**  **E) NOTA**

23. While exploring the seashore, an inquisitive Scelidosaurus finds a shell in the shape of a regular polygon. If the polygon has only 60-degree angles, what is the shape of the shell?

**A) Circle**  **B) Hexagon**  **C) Octagon**  **D) Square**  **E) NOTA**

24. Vera the triceratops was hungry, so she went to look for a cycad plant to eat. On the way there, she found a magical dragonfly that doubled in mass every day! How many days did it take for the dragonfly to grow 40 grams, if it took 16 days to grow 160 grams?

**A) 4 days B) 8 days C) 12 days D) 14 days E) NOTA**

25. Sauropods were one of the most widespread dinosaurs and they were also one of the longest-lived dinosaurs, roaming Earth for around 100 million years. Their footprints, which were circular, have been found on all continents except Antarctica. Sometimes their tails dragged on the ground through the footprint. What is the maximum number of intersections that 2 identical circles and 3 lines can make?

**A) 17 B) 16 C) 12 D) 5 E) NOTA**

26. A herd of 179 Dryosauruses were resting at the mouth of a river when a large dinosaur appeared and interrupted their break. Of the 179 Dryosauruses, 50 ran away, 78 honked in surprise, and 35 both ran away and honked, thinking the large dinosaur was the scary Carnosaurus. However, it turned out that the large dinosaur was actually just an herbivorous Muttabarruasaurus, and the rest of the Dryosauruses saw this and stayed. How many Dryosauruses then were smart enough to see that the large dinosaur was only a gentle Muttabarruasaurus?

**A) 16 B) 51 C) 86 D) 101 E) NOTA**

27. A velociraptor has fallen behind from her pack. She screams out “I’ve fallen and I can’t get up!” but sadly no other velociraptor hears. Determined to live, she runs at 30 miles per hour to catch up to the pack. If the pack is traveling at 20 miles per hour and the velociraptor is 15 miles behind her pack, when will she catch up?

**A) 150 minutes** **B) 75 minutes** **C) 90 minutes** **D) 60 minutes** **E) NOTA**

28. A Pterodactyl and an Archaeopteryx, another kind of flying dinosaur, decided to race each other from a cliff to a pine tree 27 kilometers away. The Pterodactyl flew 1.5 km/min, and the Archaeopteryx flew 6 m/s. What is the time difference between when the Pterodactyl arrived at the pine tree and when the Archaeopteryx arrived?

**A) 18 min B) 36 min C) 57 min D) 75 min E) NOTA**

29. Tracy the Triceratops is trying to find food in a rectangular forest measuring 20 km by 34 km. However, there is a T-Rex resting in the forest, and if Tracy gets in a 2 km radius of the T-Rex, it will eat her. What is the area of the forest that is safe for Tracy? (Use 3.14 for pi)

**A) 673.72 km2 B) 667.44 km2 C) 686.28 km2 D) 692.56 km2 E) NOTA**

30. A cautious Diplodocus also wants to enter the forest with the T-Rexes and the Triceratops, but she wants to know how many T-Rexes there are first. She knows that T-Rex stands on two legs while Triceratops stand on four legs. With her long neck, she peers over the top of the forest and counts 14 heads, then she lies down low and counts 46 legs. How many T-Rexes are in the forest?

**A) 5 B) 7 C) 9 D) 10 E) NOTA**