5 POINTS

1. Two sticks have 4 ends. How many ends do 5 and a half sticks have?

   A. 8 B. 10 C. 11 D. 12 E. 14

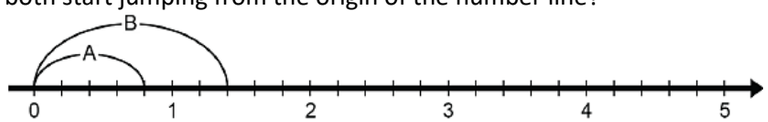
2. Harry's history assignment was to read the textbook starting on the top of page 9 through the bottom of page 22 and write a research paper. How many pages did he have to read to complete his history assignment?

   A. 11 B. 12 C. 13 D. 14 E. 15

3. How many times a day would a minute hand pass a digit of "1" on an analog clock?

   A. 12 B. 24 C. 48 D. 96 E. 120

4. The lengths of the jumps of two spiders (A and B) are shown in the diagram below. What is the distance between the two spiders after A has made 5 jumps and B has made 3 jumps if both start jumping from the origin of the number line?



   A. 1/5 B. 2/5 C. 3/5 D. 4 1/5 E. 4 2/5

5. A line is drawn through the center of a rectangle, dividing the rectangle into two squares. If the original rectangle has a length of 60 cm and a width of 30 cm, what is the perimeter of one of the squares?

   A. 30 cm B. 60 cm C. 90 cm D. 120 cm E. 140 cm

6. If 3 apples weigh as much as 4 pears, and 2 pears weigh as much as 5 plums, then 9 apples weigh as much as _____ plums.

   A. 10 B. 15 C. 19 D. 27 E. 30

7. Each time a chartered bus with 18 people stops, 3 people get off and then 2 people get on the bus. This continues until the bus is empty at which point no other people get on. In all, how many stops does it take until the bus is empty?

   A. 18 B. 16 C. 14 D. 9 E. 6

8. A wall is painted with stripes. The first six stripes are red, blue, white, purple, green and yellow, in that order. These six colors keep repeating in the same order. What color is the 58th stripe on the wall?

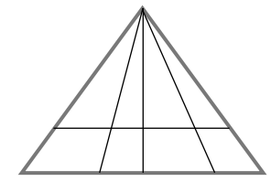
   A. Red B. Blue C. White D. Purple E. Green

7 POINTS

9. Palindrome years (like 1991 and 2002) read the same forwards and backwards. The year 1991 and 2002 are 11 years apart. How many years apart are 2002 and the first palindrome year after 2002?

   A. 11 B. 22 C. 110 D. 122 E. 220

10. Find the total number of triangles in the figure below?



   A. 22 B. 20 C. 14 D. 12 E. 8

11. Shirley and Suren are planning a party. They expect 16 people to be at the party. They bought six 3-liter bottles of soda. If each drinking cup holds 450 ml of soda, how many servings of soda will they have?

   A. 40 B. 38 C. 36 D. 35 E. 30

12. There are 100 new mileage posts set on a brand-new road. If a painter needs to mark them with consecutive numbers starting from 1, how many times will he write digit 9?

   A. 1 B. 10 C. 18 D. 19 E. 20

13. Jonathan has 168 pens. He would like to pack the pens equally into boxes without any leftover. How many ways can he pack the pens if he wants to have at least 2 boxes of pens?

   A. 8 ways B. 10 ways C. 11 ways D. 15 ways E. 16 ways

14. Granny Smith has 10 pets, all dogs and cats. Once she cooked 56 cutlets and soon, they were all eaten. Every cat ate 5 cutlets, every dog ate 6 cutlets. How many dogs live at granny Smith's?

   A. 7 B. 6 C. 5 D. 4 E. 3

15. Sally has 10 coins that have a total value of 83¢. She has only quarters, dimes, nickels, and pennies. If she has a different number of each type of coin, she has more _____ than any other type of coins.

   A. pennies B. nickels C. dimes D. quarters E. dimes & pennies

10 POINTS

16. The average of two numbers is 31. We add 6 to the first number and subtract 4 from the second. What is the new average?

A. 30 B. 31 C. 32 D. 33 E. 34

17. 

How many minutes before 6 p.m. is 600 minutes after 6 a.m., of the same day?

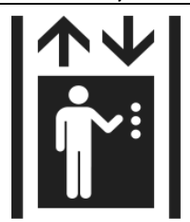
A. 100 B. 120 C. 140 D. 200 E. 220

18. Jayden has 100 square tiles, each of which has a perimeter of 4 inches. If he forms a rectangle using all the tiles, what is the smallest perimeter the rectangle he forms could have?

A. 34 inches B. 40 inches C. 58 inches D. 104 inches E. 202 inches

19. Five fishermen ate 5 fish in 5 days. How many days will it take for 10 fishermen to eat 10 fish?

A. 2 days B. 3 days C. 5 days D. 10 days E. 12 days

20. 

One elevator can carry a maximum of either 12 adults (and 0 children) or 20 children (and no adults). How many children can ride in the same elevator with 9 adults and not exceed the capacity?

A. 15 B. 12 C. 10 D. 5 E. 3

MATH CHALLENGE TOURNAMENT®

FALL 2019

ELLIPSIS ACADEMY

Problem Solving Challenge

Grade 4

Problem 1 – 20

Do not begin until you are instructed to do so.

40 minutes

You may use scratch paper to do any calculation to reach final answers.
Mark your answers in the ANSWER SHEET.
You have 40 minutes to complete the Problem-Solving Challenge