Member: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Math Club

Mathematics League Competition

Practice Problems – Worksheet 1

1) If 84 players split themselves into teams, how many more teams can they form by splitting into teams of 4 instead of teams of 6?

2)

3) Three angles of a triangle can measure and \_\_\_\_\_.

4) To the nearest tenth:

5) If my bad hair day began 720 minutes before 7:20 pm, then my bad hair day began at what time?

6) \_\_\_\_\_.

7) Of the whole numbers how many are greater than the sum of their digits?

8) ?

a. b. c. d.

9) 7 is prime, so May 7th is a *prime* day. In all, May has \_\_\_\_\_ prime days.

10) ?

11) 500 nickels = \_\_\_\_\_ quarters

12) If a square’s side-lengths are integers, its perimeter could be:

a. 33 b. 44 c. 55 d. 66

13) If 3 out of every 150 astronauts walk on the book, then \_\_\_\_\_% of all astronauts walk on the moon.

14) Of the following, which doesn’t reduce to ?

a. b. c. d.

15)

16) A(n) \_\_\_\_\_ can be made from 2 squares that share a common side.

a. octagon b. hexagon c. rectangle d. triangle

17) By how much does the sum exceed the sum ?

18) Uncle Bookworm eats two books a week; Aunt Bookworm eats one book every two months. In a year, Uncle eats \_\_\_\_\_ more books than Aunt.

19) What is the largest odd factor of 81?

20) = ?

21) At most how many students can sit in a row of 25 chairs, if seated students must be separated by at least one empty chair?

22) The smallest multiple of 10 that’s greater than is:

a. b. c. d.

23) What is the difference between and its reciprocal is?

24) On my scooter, the real wheel’s diameter is 6 cm more than the front wheel’s. The real wheel’s circumference is \_\_\_\_ cm more than the front wheel’s.

a. b. c. d.

25) A regular polygon is always \_\_\_\_\_.

a. square b. equilateral c. scalene d. isosceles

26) If I divide my age by 5, the remainder is 3. Your age is twice mine. If I divide your age by 5, the remainder will be \_\_\_\_\_.

a. 1 b. 5 c. 3 d. 4

27) In a rectangle with perimeter 30 cm and area 56 cm2, the longer side’s length is \_\_\_\_\_ cm more than that of the shorter side.

28) If the sum of two whole numbers is 24 more than their difference, then one of the numbers *must* be \_\_\_\_\_.

a. 0 b. 6 c. 12 d. 48

29) The first 12 contestants won an average of $80. The next 20 won an average of $70. The 32 contestants won an average of \_\_\_\_\_.

30) = ?

31) At most \_\_\_\_\_ circles with radius 1 with non-overlapping interiors can fit inside a square with side-length 4.

32) \_\_\_\_\_.

33) Today is my birthday. My age today, in months, is 72 times my age 5 years ago, in years. My age today, in years is \_\_\_\_\_.

a. 6 b. 7 c. 8 d. 12

34) = ?

a. 3 b. 9 c. 27 d. 81

35) Of 2005 integers whose product is even, at most \_\_\_\_\_ can be odd.

a. 2005 b. 2004 c. 1 d. 0

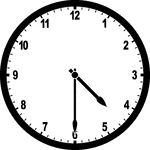
36) The number \_\_\_\_\_ equals one-fourth of its own reciprocal.

a. b. c. d. 4

37) How many numbers 11, 21, 31, 41, 51, 61, 71, 81, 91 are prime?

38) ?

a. 25 b. 2500 c. 5000 d. 7500



39) Of the following, which is the first time after 4:30 that the minute

and hour hands of the circular clock no longer form an acute angle?

a. 4:36 b. 4:37 c. 4:38 d. 4:39

40) Consecutive letters of the alphabet, starting with A, are given increasing consecutive integer values. If , then the average of all 26 of the consecutive integers is \_\_\_\_\_.

a. 491 b. 498 c. 503.5 d. 505.5