CIE-USA/DFW

MathComp 2015
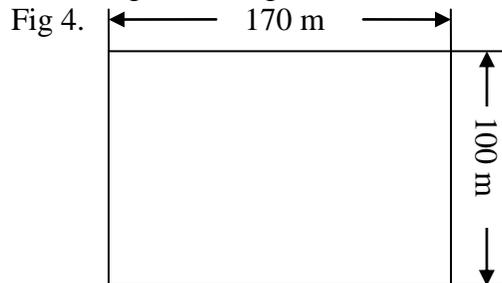
Grade 5

40 questions

Time: One Hour

- Make sure to write all your answers on the answer
  Sheet. Only the answer sheet will be graded.
- Each question only has one correct answer. The difficulty of the question is
  randomly distributed.
- Print your name clearly and legibly below.

Name _____

Room _____

1. Which of the following fractions is the equivalent of 5/7?

    A. 12/17
    B. 9/14
    C. 10/18
    D. 10/14

2. Change 0.68 to a fraction
    A. 1/68
    B. 6/8
    C. 26/68
    D. 17/25

3. If there were 300 people at a dinner and nearly 39% ordered fish, approximately how many ordered fish?
    A. 200
    B. 150
    C. 120
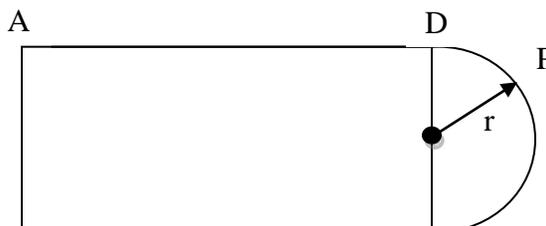   D. 110

4. A rectangle has length of 170m and width of 100m; Find out the area.

Fig 4.

    A. 170 m
    B. 1700 m
    C. 17000 m^2
    D. None of the above

5. There are five Mondays and four Tuesdays in August of a year. What day is August 8th of that year (August has 31 days)?

    A. Tuesday
    B. Thursday
    C. Saturday

D. None of above

6. The LCM (Least Common Multiple) of 2 and 7 is 14. What is the LCM for 4, 7, and 42?
    A. 294
    B. 1176
    C. 84
    D. None of the above

7. Jessica weighed a beaker filled with liquid. If the beaker and the liquid weighed 15.478 grams and she spilled out 6.9 grams of liquid. How much do the beaker plus the liquid weigh now?
    A. 15.478
    B. 22.378
    C. 8.578
    D. 6.9

8. If it takes one minute to make a cut, how long will it take to cut 32 yards of cloth to 8 equal lengths, cutting 1 piece at a time?
    A. 4 minutes
    B. 5 minutes
    C. 6 minutes
    D. 7 minutes
    E. 8 minutes

9. Jason was buying treats for 28 kids for his birthday party. He was told that 10 cookies and 18 scones will cost $36, but 15 cookies and 13 scones will cost $40. How much is one cookie?
    A. 1.8
    B. 2.1
    C. 2.4
    D. None of the above

10. A dinner table is composed of a rectangle and a semi-circle (see Figure 11). The length of rectangle is 12 ft. and the radius of the circle is 4 feet. The surface area of this table is: (in terms of π)

    A. 96+8π square feet
    B. 120+16π square feet
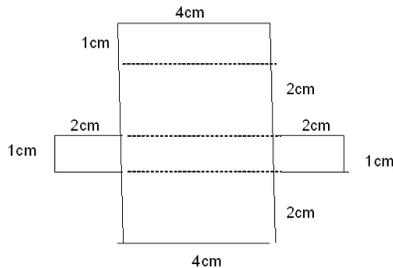   C. Not enough information to solve it

    Fig 11.

11. The average value B 0 numbers is 789. The avera C of eight of those ten is 678. Find the average of the other two numbers.

    A. 1183
    B. 1233
    C. 1323
    D. 2466

12. Tom walked a total of 65 miles for 5 days. Every day he walked 4 miles less than the day before. How many miles did Tom walk the last day?

    A. 4 miles
    B. 5 miles
    C. 6 miles
    D. 10 miles
    E. None of the above

13. What is the surface area of the box formed by the pattern below?

    A. $24cm^2$
    B. $28cm^2$
    C. $21cm^2$
    D. $14cm^2$
    E. $8cm^2$

14. Alice talked on the phone with two friends. She talked to Sherry for 2 1/2 hour, and to Gabriel for 30 minutes. How much time did Alice spend on the telephone?

    A. 2 Hours.
    B. 2 and half Hours.
    C. 3 Hours.
    D. None of the above

15. Which equation could have been used to create this function table?

x	y
-1	-1
1	3
2	5

    A. Y= -1+X
    B. Y= 1- X
    C. Y= 1+2X
    D. X and Y have no relationship

16. Out of a sample of 450 people, 8% were vegetarians. How many were not vegetarians?

    A. 360
    B. 414
    C. 280
    D. 524
    E. None of the above

17. The table shows the annual profit for five companies. Which statement is valid about the annual profit of these five companies?

Company	Profits
I	$300,000
II	$285,000
III	$260,000
IV	$335,000
V	$210,000

    A. Companies II and V made the same profit.
    B. No company made less than $285,000 in profits.
    C. No company made more than $310,000 in profits.
    D. Company IV made $85,000 more in profits than company III.
    E. None of above

18. Find the value of the expression a+6 when a= - 8
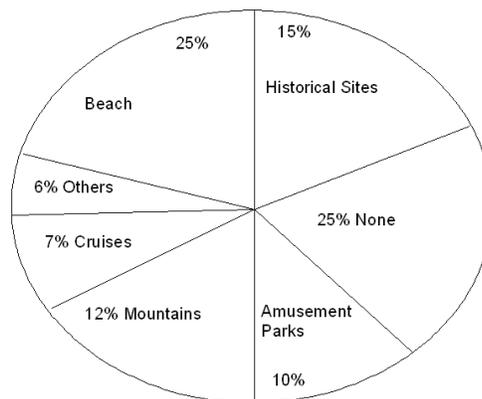
    A. 2
    B. 6
    C. -8
    D. -2

19. On a map, 2 cm = 7 miles. What is the actual distance of a sidewalk that measures 10 cm on the map?

    A. 14 miles
    B. 28 miles
    C. 35 miles
    D. 65 miles
    E. None of above

20. The pie chart below shows the distribution of vacation destinations for students attending Arlington High School.

Vacation Destinations

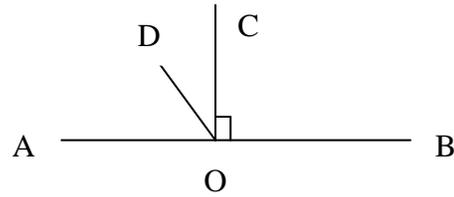If 600 students attend Arlington High School, how many are going to the mountains for vacation?

    A. 76
    B. 75
    C. 74
    D. 73
    E. 72

21. Find the value of $8^7 \times 6^9 \times 5^0 \div (8^5 \times 6^8)$

    A. 38
    B. 48
    C. 384
    D. 348
    E. Cannot be decided.

22. Point O is on the line segment AB. ∠BOC is 90°. ∠BOD: ∠COD=4:1. Find ∠AOD.
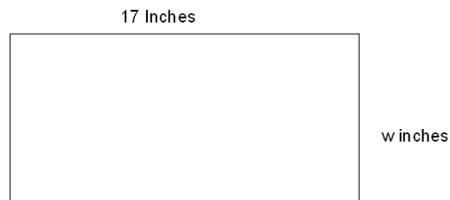
A. 25
B. 30
C. 60
D. 75
E. None of above

23. Initially it took a machine 16 minutes to fill 300 bottles of soda. After technology improvement, the machine can fill twice as fast as before. How many minutes does it take the machine to fill 750 bottles of soda after the improvement?

A. 16 minutes
B. 20 minutes
C. 32 minutes
D. 40 minutes

24. The rectangle shown below has a length of 17 inches and perimeter of Q inches. Which equation could be used to find the width (w) of the rectangle?

17 Inches

w inches

A. W=1/2 (Q-34)
B. W=Q/2-34
C. W=Q-34
D. None of the above

25. The sale ad read: "Buy three tires at the regular price and get the fourth tire for $3." Tom paid $240 for the set of four tires at the sale. What was the regular price of one tire?
A. $59
B. $79
C. $80
D. Cannot be decided

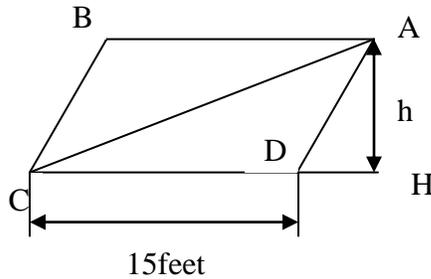26. Find 7% of 430. Round off the answer to the nearest whole number.

    A. 30
    B. 40
    C. 50
    D. 60
    E. None of the above

27. If there were 300 people at a dinner and nearly 40% ordered fish,
    approximately how many ordered fish?

    A. 200
    B. 120
    C. 150
    D. 110
    E. 90.

28. Figure ABCD is a parallelogram and the area of $\triangle ABC$ is 30 square feet.
    The length of CD is 15 feet; AH is the height of ABCD. Find the length of AH.

    Fig 29-

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

29. Find the value of N that completes the equation 3N-5=N+17

    A. 10
    B. 1
    C. 13
    D. None of the above

30. What is the complement of $(3X)^0$

    A. $(180-3X)^0$
    B. $(100-3X)^0$
    C. $(90-3X)^0$
    D. $(3X)^0$
    E. None of the above

31. What is the prime factorization of 504?

    A. $2 \times 3 \times 5 \times 7$
    B. $2 \times 3 \times 7$
    C. $2 \times 2 \times 2 \times 3 \times 3 \times 7$
    D. $2 \times 2 \times 3 \times 3 \times 5 \times 7$
    E. $7 \times 8 \times 9$

32. How many ounces does a one and quarter pound hamburger patty weigh?

    A. 10
    B. 18
    C. 20
    D. None of the above

33. What is the supplement of $(9b)^0$

    A. $(100+9b)^0$
    B. $(180\text{-}9b)^0$
    C. $(90\text{-}9b)^0$
    D. $(100\text{-}9b)^0$

34. If the length, width, and height of a box are , respectively, $8^{\,cm}$, $7^{\,cm}$, $4.6^{\,cm}$. find its volume.
    A. 257.6 cubic cm
    B. 258 cubic cm
    C. 56 cubic cm
    D. None of the above

35. Multiply (+3) (-2) (-1) (+4)
    A. -24
    B. -12
    C. +24
    D. +12
    E. 20

36. Change 4.05×10^3 to a whole number.
    A. 40.5
    B. 405
    C. 4,050
    D. 40,500
    E. 405000

37. A movie starts at 1:00pm and lasts 190 minutes. When will the movie end?

    A. 3:40pm
    B. 3:45pm
    C. 4:10pm
    D. 4:30pm

38. Divide 229.862 by 5.26

    A. 43.62
    B. 43.6
    C. 47
    D. 43
    E. 43.7

39. Multiply 4.56 by 13.7 and round the answer off to the nearest tenth

    A. 62.472
    B. 62.47
    C. 62.5
    D. None of the above

40. A jar contains 6 blue marbles, 7 red marbles, and 2 white marbles. without looking find P (blue).
    A.   3/15
    B.   6
    C. 2/5
    D.   10
    E.   12

BONUS QUESTION:

41. Each of the equal sides of an isosceles triangle is 7 and its base is 2 more than the base of an equilateral triangle. If the perimeters of the two triangles are equal, find a side of the equilateral triangle.
    A. 8
    B. 5
    C. 9
    D. 6