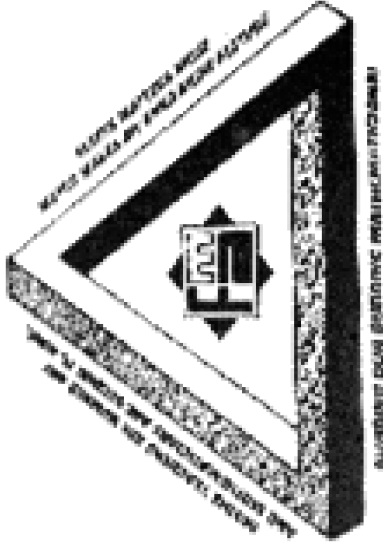


22. Joshua puts 30 L of oil and 15 L of vinegar into a large empty can. He then adds 15 L of kerosene to create a new mixture. What percentage of the new mixture is oil?
- A. 20% B. 25% C. 30% D. 40% E. 50%
23. What is the name given to a ten – sided figure ?
- A. Nonagon B. Octagon C. Decagon D. Undecagon E. Dodecagon
24. If 8 pieces of rope, each 1 ½ meters long, can be cut from a roll, how long is the roll ?
- A.10m B. 12m C. 10.5m D. 11m E. 13.5m
25. A packet of milk powder is bought for \$3.50 and sold for 20% less. If 40 packets are sold, find the loss?
- A. \$2.80 B. \$30.00 C. \$28.00 D. \$15.00 E. \$0.70
26. A group of six people went to a restaurant. They each chose a meal costing \$10.50 but two of them had lost their purses. In order to settle the bill, how much extra would those who brought their money have to pay?
- A. \$5.25 B. \$5.75 C. \$1.24 D. \$0.75 E. \$6.75.
27. Francis is playing on a ladder. He starts out on the middle step. He goes up 5 steps, down 10, up another 7 and up 9 more steps to the top. How many steps are there on the ladder?
- A. 11 B. 20 C. 23 D. 25 E. 30
28. Tender Care soap is selling only in packets of 4 for \$2.99 or 6 for \$3.99 or 10 for \$6.99. I need to buy 196 cakes of soap for a hostel. What is the smallest amount I need to pay?
- A. \$130.68 B. \$130.67 C. \$137.04 D. \$126.80 E. \$31.67
29. The side length of a cube has been increased 3 times. How many times is the volume increased ?
- A. 27 B. 9 C. 3 D. 1 E. Area remains the same.
30. Manish is a car dealer. He sold a car for \$30000 at a profit of 25%. How much did he buy the car for?
- A \$20000 B. \$25000 C. \$28500 D. \$24000 E. \$28000

FIJI MATHEMATICS ASSOCIATION



FIJI MATHEMATICS COMPETITION (FMC) YEAR 9

Thursday 10th July 2014
Time Allowed: 1 Hour 15 minutes

Note:

Calculators are NOT permitted.

Diagrams are NOT drawn to scale.

Instructions:

1. Print your **Name**, **School Name** and **Year** clearly in the space provided on the answer sheet.
2. Shade the circle corresponding to your answer with pencil on the answer sheet provided.
3. Multiple answers **will not be** accepted.

1. What is the sum of the first 5 even numbers?

- A. 30 B. 25 C. 40 D. 45 E. 31

2. What is the next number in the sequence 4, 8, 12, 16, 20,.....?

- A. 23 B. 24 C. 27 D. 30 E. 35

3. An empty carton weighs 2 kg. If 10 boxes each of weight 20g are placed inside the box, what is the new weight of the box?

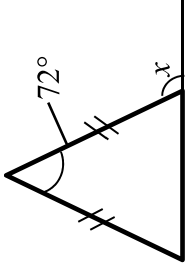
- A. 2 kg B. 2.12kg C. 2.1kg D. 2.02 kg E. 2.2 kg

4. Calculate the value of $10 - 3 \times 4 + |2 - 5|$

- A. 31 B. -5 C. 25 D. 1 E. 49

5. In the diagram the value of x is

- A. 108° B. 180° C. 126°
D. 252° E. 54°



6. The value of $\frac{4}{5} - \frac{2}{3} \times \frac{3}{5}$ is

- A. $\frac{3}{5}$ B. $\frac{6}{5}$ C. $\frac{2}{15}$ D. $\frac{3}{5}$ E. $\frac{2}{5}$

7. You travel by car from home to school each day. You leave home at 7.25 a.m and arrive at school just as the warning bell rings at 7.55 a.m. Your home is 1900 metres from school. What is the average speed of your car rate in km/hr?

- A. 4.5km/hr B. 4 km/hr C. 4.1km/hr D. 3.8 km/hr E. 63.3 km/hr

8. A rectangular sheet of cardboard is 1 meter long and 0.6 meters wide. A square of side 10cm is cut from each of the four corners and the remaining cardboard is then folded to make an open rectangular container. What is the volume of the container in cubic centimetres?

- A. 32,000 cm³ B. 4,800 cm³ C. 60,000 cm³ D. 45,000 cm³ E. 48,000cm³

9. If the radius of one circle is 3.5 times the radius of the other, what is the scale factor for the area of the two circles?

- A. 9 B. 12.25 C. 7 D. 10 E. 16

10. What is the value of x in the equation: $2(x - 3) = 12$

- A. 5 B. 6 C. 7 D. 8 E. 9

11. The ratio of male students to females in a Maths class is 3:5. If there are a total of 40 students in the class, how many females are there?

- A. 15 B. 20 C. 25 D. 30 E. 35

12. Which of the following numbers is not a rational number?

- A. 4 B. 0.5 C. $\sqrt{15}$ D. 0 E. $\sqrt{64}$

13. The three angles of a triangle are $(2x)^\circ$, $(3x)^\circ$ and $(90 - x)^\circ$ respectively .What is the value of x ?

- A. 30 B. 45 C. 90 D. 45/2 E. 60

14. The sum of the **exterior angles** of **octagon** is

- A. 45° B. 360° C. 540° D. 900° E. 1080°

15. A girl is 5 years younger than her elder brother. Their combined age is 21 years. The brother's age is:

- A. 12 years B. 13 years C. 14 years D. 15 years E. 16 years

16. m^{a+b} is equal to:

- A. $am - bm$ B. $m^a + m^b$ C. $m^a \times m^b$ D. m^{a-b} E. m^{ab}

17. Evaluate: $3 - 9 \div (7 - 4) \times -2$

- A. 10 B. -9 C. 3 D. 9 E. 4

18. An airplane flew 600km in one and half hours. The speed of the plane in km/hr is

- A. 750 B. 480 C. 150 D. 2400 E. 400.

19. John had \$75. He spent \$15 on a book. What percentage of his money does he have left?

- A. 20% B. 40% C. 50% D. 60% E. 80%

20. Tickets at a soccer game costs \$2 for children and \$4 for adults. If a total of 500 tickets were sold for \$1600, how many children tickets were sold?

- A. 400 B. 200 C. 600 D.100 E. 300

21. The least common multiple (L.C.M) of 7 and 14 is

- A. 7 B. 14 C. 28 D. 35 E. 42