

Fiji Mathematics Team Competition – Zones
FORM 1/CLASS 7/YEAR 7 – 2015

- F1/1 $\frac{4}{7}$ of the birthday cake was eaten on your birthday. The next day your dad ate $\frac{1}{2}$ of what was left. You get to finish the cake, what fraction of the cake did you get to eat?

- F1/2 I am ordering three books online. The first book costs \$21.95, the second book costs \$4.95, and the third book costs \$5.95. A sales tax of 3.5% is charged on the total cost of the books. In addition, Postage and handling cost of \$3.50 is charged no matter how many books I order. How much will my total cost be?

- F1/3 There are 12 people in a living room. 6 people are wearing socks and 4 people are wearing shoes. 3 people are wearing both. How many people are in bare feet?

- F1/4 Mrs. Buksh baked 7 dozen cookies and sold them for \$4.25 per half-dozen. Calculate her percentage profit, if one dozen cookies cost her \$8.15.

- F1/5 A radio station is having a promotion in which every 12th caller receives a free concert ticket and every 15th caller receives a limo ride. Which caller will be the first one to win both?

- F1/6 I'm thinking of two numbers, 12 and another number. 12 and my other number have a greatest common factor of 6 and their least common multiple is 36. What's the other number I'm thinking of?

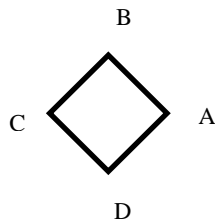
F1/7 If there are 150 people born in the world every second, how many are born in $1\frac{1}{2}$ hours?

F1/8 Your brother traveled 117 kilometers in 2.25 hours to come home for school break. What's the average speed that he was traveling?

F1/9 If a circle has a circumference of 50.29 cm, what would be its radius? (Use $\pi = \frac{22}{7}$)

F1/10 What is the length of the base of a triangle that has an area of 27cm^2 and a height of 9cm?

F1/11 Calculate the area of a Rhombus with the following measurement:

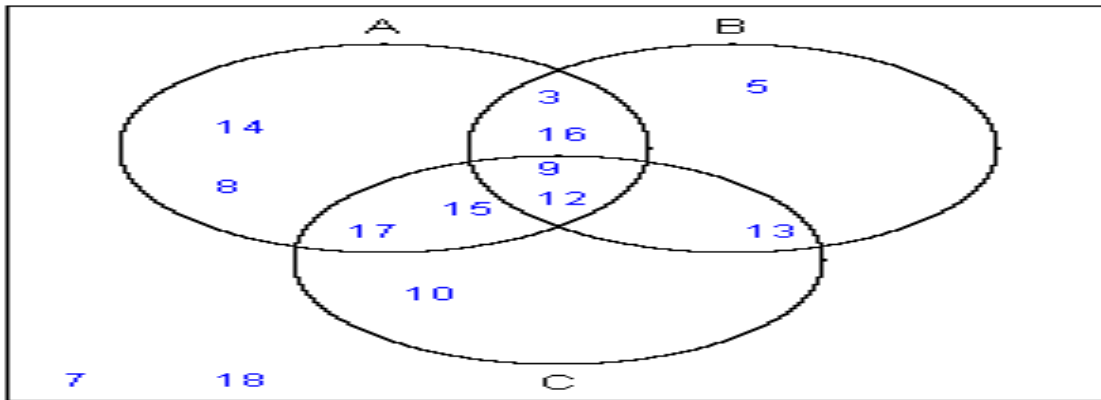


Diagonals: $BD = 22\text{ cm}$; $AC = 34\text{cm}$
Side $AB = 15\text{cm}$

F1/12 A passenger train travelled to the repair yard and back. On the trip there, it travelled 68km/hr and on the return trip it went 85km/hr. How long did the trip there take if the return trip took 4 hours?

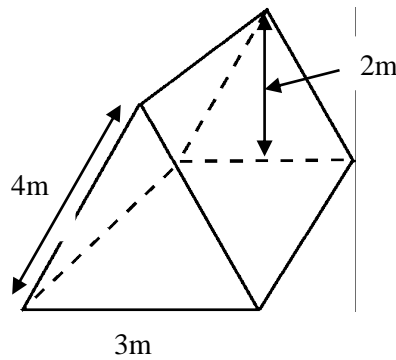
F1/13 A rectangle has a length of 20 meters and a width of 10 meters. If each of its sides is increased by 10%, by what % will the area of the rectangle increase?

F1/14 In the Venn diagram given give the set that is represented by: $A' \cup (B \cap C)'$



F1/15 If 16 $\frac{1}{2}$ % of my money is \$12. What is 50% of my money?

F1/16 If the volume of the Triangular prism is 18m^3 , what is its total surface area, given the following dimensions?



F1/17 If my birthday this year fell on Tuesday, on what day of the week will my birthday fall in the year 2018?

F1/18 During the school bazaar, the parents raised \$50 000. The money had been distributed according as shown in table given below.

If the distribution of money is plotted on a pie chart, what would be the size of the sector in degrees represented by the NEW CLASSROOM allocation?

Schools Needs	Allocation
School Maintenance	0.3
New Photocopier	0.1
New Computers	0.2
New Classroom	0.4

F1/19 Mrs Tawake had \$750 in a Fixed Deposit Account in a bank for 2 years. The bank is offering a $12\frac{1}{2}\%$ interest per annum. What amount would she get in her account after 2 years?

F1/20 A water tank, which is the shape of a cuboid, has a square cross-section. The water tank when $\frac{1}{3}$ full holds 324 ml of water. What is the length of the square cross section if the cuboid is 12cm long?

Tie Breaker:

F1/21 In the end of year Math exam, the mean mark scored by the 30 students in Year 701 was 55% and the mean mark scored by the 25 students in Year 702 was 44%. What was the mean mark of all the students?

F1/22 Aayaan is 3 years older than Koji. Koji is 6 years younger than Harry. If Harry is twice as old as Ben and Ben is 8 years old then how old is Aayaan?
