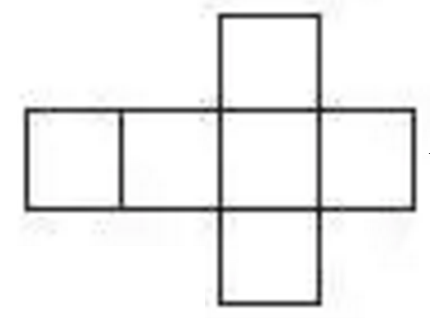
**Fiji Mathematics Team Competition – FINAL**

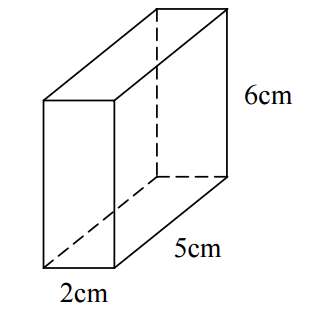
**YEAR 8 – 2016**

Y8/1 Determine the volume of the shape if the perimeter of its net (shown) is 28 units

F2/2 If 4 fligs make a flog and 6 flogs make a flug, how many fligs in 12 flugs?

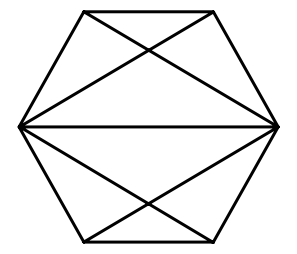
Y8/3 Solve for x

Y8/4 Maria decides to increase her homework time of 9 hours per week by 25%. Calculate her new homework time. Give your answer in hours and minutes.

Y8/5 If what is the mass of the solid (in grams) in the diagram if its Density is

Y8/6 There are 101 soccer teams who play in a knockout tournament, where the team on a bye (selected by raffle) automatically proceeds to the next round. How many games must be played to selected a winner in the tournament?

Y8/7 During a marathon race an athlete loses 2% of her mass. At the end of the race her mass is 67.13kg. Calculate her mass before the race.



Y8/8 How many different triangles (of all sizes) are in this figure?

Y8/9 . Given that the value of a is 2, what is a possible value of b?

Y8/10

Y8/11 Thirty equally spaced points on a circle are labeled in order with the numbers 1 to 30. Which number is directly opposite to 8?

Y8/12 Evaluate

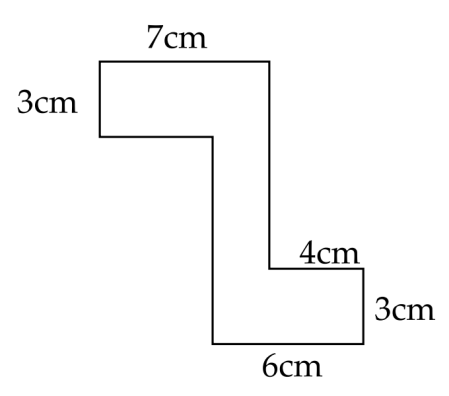
Y8/13 A group of students organized a car wash. The standard wash cost $5.00 and the deluxe wash cost $7.00. A total of $176.00 was raised. What is the minimum number of cars washed?

Y8/14 Concrete is made by mixing screenings, cement and sand in the ratio 3:2:10. How much sand would be needed to make 84 tonnes of concrete?

Y8/15 A real estate agent sells house for $80 000. She earns a 3% commission on the first $50 000 and 2% on the remainder. What is her total commission for the sale?

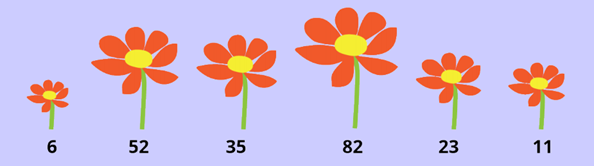
Y8/16 What is the largest possible number of people possible in a room such that no two of them have birthdays on the same month.

Y8/17 The sum of four consecutive even numbers is 340. What is the largest of the four even numbers?

Y8/18 The area of the figure below is 55cm2. Find its perimeter.

Y8/19 Sheemal spent half of her allowance going to the movies. She washed the family car and earned $8.00. What is her weekly allowance if she ended with $20.50?

Y8/20 Sam the bee flies to a park of flowers to collect pollen. On each flight, he visits only one flower and can collect up to 10 mg of pollen. He may return to the same flower more than once. The initial amount of pollen in each flower (in mg) is shown below. What is the maximum total amount of pollen that Sam can collect in 20 flights?



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Tie breaker

Y8/21 The game of Scrabble gives values to letters: A = 1, B = 3, C = 3, D = 2, E = 1, F = 4, G = 2, H = 4, I = 1, J = 8, K = 5, L = 1, M = 3, N = 1, O = 1, P = 3, Q = 10, R = 1, S = 1, T = 1, U = 1,V = 4, W = 4, X = 8, Y = 4, Z = 10. The value of a word is the sum of the values of the letters. For example, ONE = 1 + 1 + 1 = 3. The name of which positive integer has Scrabble score equal to itself?

Y8/22 Simplify

Y8/21 The game of Scrabble gives values to letters: A = 1, B = 3, C = 3, D = 2, E = 1, F = 4, G = 2, H = 4, I = 1, J = 8, K = 5, L = 1, M = 3, N = 1, O = 1, P = 3, Q = 10, R = 1, S = 1, T = 1, U = 1,V = 4, W = 4, X = 8, Y = 4, Z = 10. The value of a word is the sum of the values of the letters. For example, ONE = 1 + 1 + 1 = 3. The name of which positive integer has Scrabble score equal to itself?

Y8/22 Simplify