**Fiji Mathematics Team Competition– ZONES**

**Class 6 / YEAR 6- 2016**

Y6/1 Find the missing number in the following series:

234567, 23456, \_\_\_\_? \_\_\_, 234, 23

Y6/2 Jethro won a big lottery. He spent two thirds of his winnings on a very posh house. He spent two thirds of what he had left on a luxury yacht. Then he spent two thirds of what he had left on a Jet Ski. He spent his last $20 000 on a flashy car.

How much was the lottery that Jethro won?

Y6/3 There are 5 forks in the cutlery drawer. There are 5 more knives than forks, and there are twice as many spoons as knives. How many pieces of cutlery are there in all?

Y6/4 The clock in my lounge room is 10 minutes slower than the clock on my phone, which is 6 minutes slow. My tram always leaves 6 minutes early, although it is scheduled for 8:55am. It takes me 20 minutes to get to the tram stop. What time must I leave, according to my lounge room clock, in order to catch my tram?

Y6/5 From home, Mary’s work is two thirds along the way to training. Training is 2.5km from work. Mary normally goes to work, then training and then home again. However, today she forgot her shoes. How far will Mary travel in **total today** if she has to go home before training to get her shoes?

Y6/6 How many gold coins are there in a jar of 88 coins, if there is 1/3 as many silver coins as gold coins?

Y6/7 It takes 1.5 litres of sugar soap to wash a square metre of ceiling and 0.5 litres of sugar soap to wash a square metre of wall. Bianca’s room is 4 metres high and each wall is 5 metres wide. There is one window, which is 4m2 and a door, which is 9m2. How much sugar soap will Bianca need, assuming she does not wash the door or window (a room has four walls and a roof)?

Y6/8 What is the next number in this sequence?

2, 4, 10, 28, 82, **\_? \_**

Y6/9 Simplify fully the fraction:

Y6/10 How many 250ml bottles can be filled from 400 litres of water?

Y6/11 Mike had 14 boxes of 19 stamps. He bought 9 more stamps.   
  
How many stamps does he have now?

Y6/12 A car is traveling 75 kilometers per hour. How many meters does the car travel in one minute?

Y6/13 Ram and his grandmother are working on a jigsaw puzzle. They have fitted together 750 pieces, or 3/5 of the total. How many pieces are left?

Y6/14 One kilogram of carrots makes 600 milliliters of juice. The stand owner squeezes 34 kilograms of carrots to sell in 800-mililitre glasses. By the afternoon, the farm has sold all of the glasses of juice. How much juice is left over?

Y6/15 Esita mixed of a cup of water with of a cup of vinegar in a science experiment. How much more water than vinegar did Esita use? Simplify your answer.

Y6/16 At a dance recital, ballet dancers performed for 19 minutes, modern dancers performed for 24 minutes, and hip-hop dancers performed for 12 minutes. If the recital ended at 9.43 pm, at what time did it begin?

Y6/17 Megan and Daniel have a bag of 150 raisins. Megan eats 18 raisins, and Daniel eats half of the remaining raisins. What fraction of the raisins is not eaten? Simplify your answer.

Y6/18 A sixth-grade class makes a documentary about animals. The film begins at 6:00 pm. with a 4-minute introduction. The next section is about pets. Then comes a discussion of wild animals, which is twice as long as the previous section. The film ends with a 6-minute conclusion at 7:10 P.M. At what time does the discussion of wild animals begin?

Y6/19 Swimming competitions are held on October 6, October 13, October 19, October 26, and November 1. If this pattern continues, on which date would the last competition in the month of November be held?

Y6/20 A curtain with a width of 0.75 m is hung in front of a window with a perimeter of 2.8 m. Rings are sewn into the top of the curtain at each end, and every 7.5 cm in between. The rings are placed on a curtain rod that hangs 8.2 cm above the window. How many curtain rings are there?

Tie Breaker:

Y6/21 On October 13, 2002, British runner Paula Radcliffe set a new world’s record for the women’s marathon. She ran 26.2 miles in 137.3 minutes. The previous world’s record was one minute and 29 seconds slower. What was Radcliffe’s average speed per minute on her record-breaking run?

Y6/22 Dan cycled 112 kilometers in 3.7 hours. Marcy cycled at an average speed of 45 kilometers per hour. If Marcy continues at this speed, how many kilometers more would Marcy have cycled than Dan?