**Fiji Mathematics Team Competition - Final**

**YEAR 7 – 2016**

Y7/1 A spinner has 4 equal sectors colored yellow, blue, green, and red. What is the probability of landing on red or blue after spinning this spinner?

Y7/2 The cost of adding a garage to a home is 5 times as much as the cost of painting the house. If the garage cost $15 000, find the cost of painting the house?

Y7/3 Darren ordered a large chicken pizza. The pizza was approximately 160 cm2 and it was sliced in equal pieces from the center. The central angle of each slice of pizza measured 600. If Darren ate 4 slices of pizza, approximately how much pizza was left?

Y7/4 A die is thrown once. What is the probability that the score is a factor of 6?

Y7/5 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?

Y7/6 Find the diameter of a circle with a circumference of 21.98 meters. (Use π=3.14)

Y7/7 A number from 1 to 10 is chosen at random. What is the probability of choosing a 5 or an even number? (Express answer in the simplest fraction)

Y7/8 Domino’s Pizza Pantry sells pizzas with a variety of toppings, if you like vegetables! The menu includes capsicums, mushrooms, and celery for extra healthy pizzas. You can have cheese with one vegetable or cheese and ham with one vegetable. What are the different pizzas that Henry can order for a party that he is planning?

Y7/9 What is the probability of choosing the letter (i) from the word probability?

Y7/10 What is the reciprocal of 2?

Y7/11 If Karthik ran 600 meters in 1 minute and 15 seconds, how far will he run in 1 minutes and 45 seconds if he continues to run at the same speed?

Y7/12 A bank applies the following rule:

The years to double your money = 72 ÷ the interest rate

When the rate of interest is 4%, how many years will it take to double your money ?

Y7/13 The distance a spring stretches varies directly with the force applied to it. If a 7-kg weight stretches a spring a distance of 62.5 cm, how far will the spring stretch if a 12-kg weight is applied?

Y7/14 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?

Y7/15 Mr. Motu drove 310 kilometres from his house to Nausori at an average speed of 62 kilometres per hour. His trip back home took 3 hours. Calculate Mr. Motu’s average speed for the total journey to Nausori and back home.

Y7/16 The speed of sound at 200C is 344 m/s. How many seconds would it take the sound of thunder to travel 10 kilometres?

Y7/17 What is the sum of the first 20 terms of the sequence?

**4, 6, 8, 10, …**

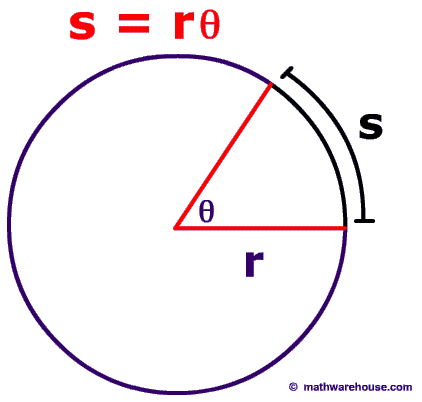
Y7/18 Area of a circle is 200.96 m2, what would be its diameter? (Use

Y7/19 A cyclist went 1km up a hill at 15km per hour. Then she went 1km down the hill at 30km per hour. Calculate the average speed of the cyclist?

Y7/20 Every 4 days, Pio Tuwai needs to improve the distance he runs in 55 sec by 0.5 metres more than he improved in the previous 4 days. On Mar 3rd he can run 400 m and on Mar 7th, he can run 400.5 m. If the trend continues, what will be Tuwai’s speed in meters per second at the end of March?

**Tie Breaker:**

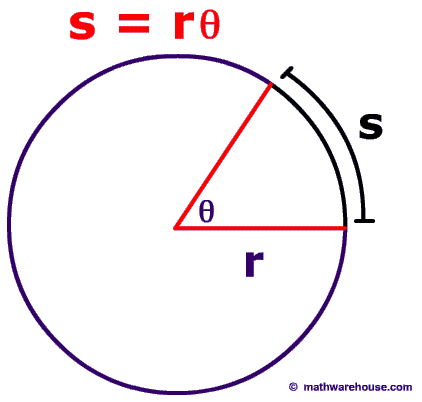
Y7/21 Tomasi deposited $12, 000 in the bank. After 1 year, he withdrew one fifth of the money, and in the second year he withdrew half of the remaining balance. What percent of the initial money is left in the bank?

Y7/22  An arc is a part of the circumference of a circle. An arc in this circle has a central angle (O) of 200 and the circle has a radius (r) of 11 cm. Calculate the length of the arc (s) made in the circumference of this circle? (Use)

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