**Maths Assessment**

**Term One, 2016**

**Stage 5**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

You have 1 hour to complete all sections of the assessment.

1. **Round the following decimals to two decimal places**
2. 16.244

1. 9.869
2. 24.328
3. 864.655
4. 521.7436
5. **How many significant figures in each of these numbers**
6. 342
7. 264.0
8. 0.4501
9. 9200.0
10. 0.002700
11. **Simplify these ratios**
12. 16:4
13. 25:5
14. 9:21
15. 8:30
16. **In a cake recipe the ratio for the ingredient honey, flour and water is 3:10:6**
17. If a cake contains 30 parts of honey, how many parts of flour and water does it contain?
18. If there are 57 parts of all these ingredients together how many parts are flour? (show workings)
19. If 12 parts of water are used, how many parts in total make up all the ingredients of the cake?
20. **$3600 is to be divided between Matthew and Julie.**
21. Find out how much money each gets if the ratio of Matthew’s to Julie’s money is 5:1. (show workings)
22. **Write these recurring decimal using dots on top of the digit**
23. 0.22222
24. 0.8686868686
25. 0.120312031203
26. 0.3456456456
27. **Find the simple interest for the following**
28. P= $1200, R= 0.08, T=12
29. P= $2000, r= 12%, T=8
30. **Let’s say you have $5000 to invest for 5 years. Which of these rates returns you the most interest? (show workings)**
* 2.7% per month
* 32% per year
* 0.7% per week
1. **A computer has been discounted by 22%. If its original price was $2024, what is the new price? (show workings)**
2. **An airline ticket costing $3200 has undergone successive discounts of 10% and 7%. What is the new price? (show workings)**
3. **You buy a car for $14 000 and wish to sell it 4 years later. If it depreciates at 16% pa straight line depreciation, how much will it be worth after 4 years?**
4. **A boat is bought for $30 000 and depreciates at 7% pa reducing balance depreciate. How much is the boat worth after:**
5. 6 years
6. 11 years
7. **A coin is tossed once**
8. What is the sample space?
9. Is this a random event?
10. **A single die is rolled ten times and these are the numbers it shows: 4, 5, 1, 4, 2, 6, 1, 3, 4, 1**
11. What is the sample space of rolling a die and is rolling a die a random event? Why?
12. In this experiment, what is the relevant frequency of a 2 being rolled?
13. In this experiment what is the relevant frequency of a 4 being rolled?
14. **A standard deck of cards (with no jokers) is shuffled and placed face down and spread out.**
15. If a card is drawn at random, what is the size of the sample space?
16. If a card is drawn at random, what is the probability it is an ace?
17. If a card is drawn at random, what is the probability it is the ace of spades?
18. If a card is drawn at random, what is the probability it is NOT a diamond?
19. If a card is drawn at random, what is the probability it is red?
20. **A library has books about sport, food and history only.**
21. The probability of selecting a single history book is 2/9. How many history books would you expect to be in a group of 36 randomly selected books?
22. The probability of selecting a single book about food is 4/9. What is the probability of selecting a single book about sport?
23. If 54 books are selected at random, how many of each type of book could be expected to be selected?

**END OF ASSESSMENT**