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| Year  7 | Mathematics Practice Test – Probability, Sample Space and Relative Frequency | **Calculator Practice Test** |
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|  | Questions 1 – 5 refer to the **experiment** in question 1. |
| 1. | Complete the **sample space** in the spaces below, for the question:  *What is* *the probability that a person chosen at random is born on a certain day of the week?*  Saturday |
| 2. | What is the probability that a person chosen at random is born on a Monday? |
| 3. | What is the probability that a person chosen at random is born on a day that starts with the letter T? |
| 4. | What is the probability that a person chosen at random is born on a weekend? |
| 5. | What is the probability that a person chosen at random is born after Monday but before Friday? |
|  | Questions 6 – 11 refer to the **experiment** in question 6. |
| 6. | Complete the **sample space** in the spaces below, for the question:  *When a normal die is thrown, what is* *the probability that a certain number will show on the upper face?*  1  This is an  5  example of  the die. |
| 7. | What is the probability that the die will show 5 on the upper face? |
| 8. | What is the probability that the die will show an odd number on the upper face? |
| 9. | What is the probability that the die will not show 5 on the upper face? |
| 10. | What is the probability that the die will show more than one, but less than six spots on the upper face? |
| 11. | What is the probability that the number of spots on the upper face of the die will not be a prime number? |

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|  | Questions 12 – 16 refer to the **experiment** in question 12. |
| 12. | A spinner in a game has eight equal sized sections which are coloured red (R), white (W) or blue (B) as shown in the diagram below.  Complete the **sample space** in the spaces below, for the question:  *When the spinner is spun, what is* *the probability that a certain colour is touching the table?*  Blue  .  White |
| 13. | What is the probability that the spinner will touch on Blue? |
| 14. | What is the probability that the spinner will touch on Red? |
| 15. | Which two colours have the same probability?  and |
| 16. | What is the probability that the spinner will touch on a colour other than White? |

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|  | Questions 17 – 21 refer to the **experiment** in question 17. |
| 17. | A barrel in a game has 16 marbles which are coloured Black, Dark Grey, Light Grey or White as shown in the diagram below.  Complete the **table** below, showing the number of marbles of each colour. The table could be used to help answer the question:  *When a marble is drawn at random from the barrel, what is* *the probability that it is a certain colour?*  **Colour**  Dark Grey  **Number o**  Light Grey  Black  5  White    . |
| 18. | What is the probability that a single marble drawn at random will be black? |
| 19. | What is the probability that a single marble drawn at random will be light grey? |
| 20. | Which two coloured marbles have the same probability of being drawn?  and |
| 21. | What is the probability that the marble drawn will be a colour other than Black? |
|  | Questions 22 – 26 refer to the following:  Kellie asks a group of 25 people, their favourite colour. The responses are shown on the table in Question 22. |
| 22. | Complete the relative frequency column of the table. |
| 23. | What is the probability that a person chosen at random will say their favourite colour is Blue? |
| 24. | What is the probability that a person chosen at random will say their favourite colour is Black? |
| 25. | Which two colours have the same probability of being mentioned?  and |
| 26. | What is the probability that a person chosen at random will say their favourite colour something other than Black? |

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|  | Questions 27 – 30 refer to the following:  Kevin surveys a group of 80 people on the state where they were born. The responses are shown on the table in Question 27. |
| 27. | Complete the relative frequency column of the table. |
| 28. | What is the probability that a person chosen at random was born in WA? |
| 29. | What is the probability that a person chosen at random was born in Qld? |
| 30. | What is the probability that a person chosen at random was born in WA or SA? |